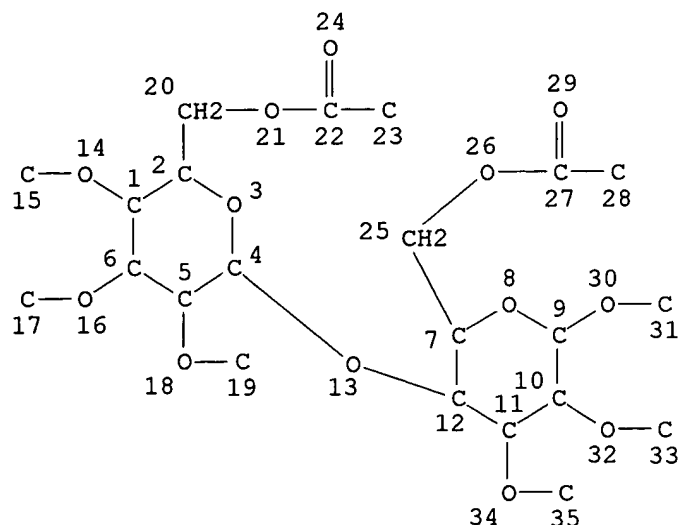


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(FILE 'REGISTRY' ENTERED AT 15:31:26 ON 01 SEP 2004)

L1

STR



Str.

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

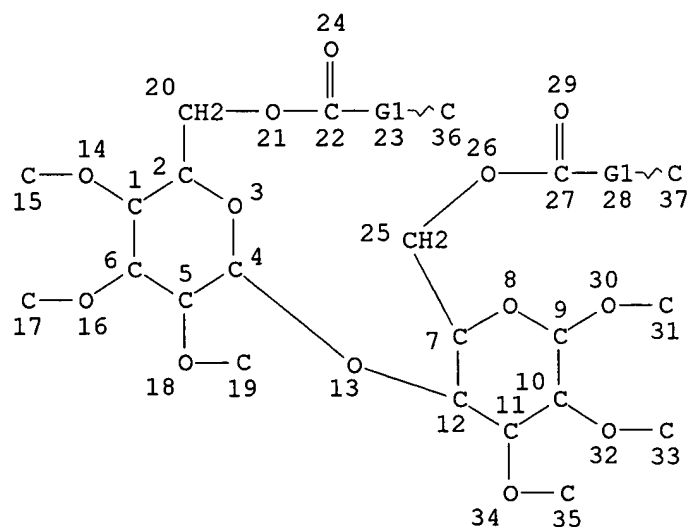
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NUMBER OF NODES IS 35

STEREO ATTRIBUTES: NONE

L7 1306 SEA FILE=REGISTRY SSS FUL L1

L20 STR



REP G1=(5-5) C

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

Searcher :

Shears

571-272-2528

10/694242

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 37

STEREO ATTRIBUTES: NONE

L21 95 SEA FILE=REGISTRY SUB=L7 SSS FUL L20

(FILE 'CAPLUS' ENTERED AT 15:32:04 ON 01 SEP 2004)

L22 26 S L21

L22 ANSWER 1 OF 26 CAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 20 Sep 2002

ACCESSION NUMBER: 2002:714120 CAPLUS

DOCUMENT NUMBER: 137:252741

TITLE: Antiperspirant formulations containing polyhydric alcohols and silicones

INVENTOR(S): Abend, Sven Jorg Willi Max; Courtois, Jean-Philippe Andre Roger; Cropper, Martin Peter; Fletcher, Neil Robert; Grainger, Lynda; Murphy, Angela Mary

PATENT ASSIGNEE(S): Unilever PLC, UK; Unilever N.V.

SOURCE: Eur. Pat. Appl., 15 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|----------|
| EP 1240893 | A2 | 20020918 | EP 2002-251682 | 20020308 |
| EP 1240893 | A3 | 20030806 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | | | |
| US 2003064041 | A1 | 20030403 | US 2002-96808 | 20020313 |
| US 6737048 | B2 | 20040518 | | |

PRIORITY APPLN. INFO.: GB 2001-6601 A 20010316

AB Structured antiperspirant emulsion formulations for topical application to human skin in a method for controlling sweat and body odor generation comprising a hydrophilic phase containing an aluminum and/or zirconium astringent salt dispersed in a structured continuous oil phase can suffer from problems of impaired sensory properties and impaired efficacy (sweat reduction). Such problems are overcome in structured antiperspirant emulsions

in which the hydrophilic phase comprises 25-55%, the hydrophilic phase contains 0-15% polyhydric alc. by weight, and the emulsifier comprises an alkyl dimethicone copolyol, the weight ratio of the hydrophilic phase to the emulsifier is selected in the range of 60:1, the structurant comprises an acylated sugar and the water-immiscible oil and the structurant are present in a weight ratio of from 1.5:1 to 8.5:1. Thus, a formulation contained Silkflo-364 28.20, DC-245 18.80, cellobiose octanonanoate 15.00, Abil EM90 0.50, water 15.00, Rezal 36GP 22.50, and dispersed phase weight 37.5%.

IT 172585-66-9

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

Searcher : Shears 571-272-2528

10/694242

(antiperspirant formulations containing polyhydric alcs. and silicones)

L22 ANSWER 2 OF 26 CAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 26 Aug 2002

ACCESSION NUMBER: 2002:640664 CAPLUS

DOCUMENT NUMBER: 137:159011

TITLE: Fatty acid esters of maltose for use in cosmetics

INVENTOR(S): Franklin, Kevin Ronald; Lasbistes, Nicolas; Webb, Nicholas; White, Michael Stephen

PATENT ASSIGNEE(S): Unilever P.L.C., UK

SOURCE: Brit. UK Pat. Appl., 80 pp.

CODEN: BAXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------|------|----------|-----------------|----------|
| GB 2368011 | A1 | 20020424 | GB 2000-25439 | 20001017 |
| US 2002076386 | A1 | 20020620 | US 2001-982150 | 20011017 |
| US 6589515 | B2 | 20030708 | | |

PRIORITY APPLN. INFO.: GB 2000-25439 A 20001017

AB A cosmetic composition, preferably an antiperspirant composition, in solid or

soft-solid form has a continuous phase which contains a water-immiscible liquid carrier and also contains a sturcturant which is partially or fully esterified α - or β anomer of maltose. A mixture of α -anomer and β -anomer of maltose octadecanoate was prepared by the reaction of maltose with sodium dodecanoate. An antiperspirant stick contained above acylated maltose 5, cyclomethicone DC-245 44, cetyl dimethicone copolyol 1, and Rezal-67 50%.

IT 445381-82-8P 445381-84-0P 445381-86-2P

445381-88-4P

RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(fatty acid esters of maltose for use in cosmetics)

L22 ANSWER 3 OF 26 CAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 26 Apr 2002

ACCESSION NUMBER: 2002:314952 CAPLUS

DOCUMENT NUMBER: 136:345481

TITLE: Preparation of cellobiose esters for use in cosmetics

INVENTOR(S): Franklin, Kevin Ronald; Hopkinson, Andrew; Webb, Nicholas; White, Michael Stephen

PATENT ASSIGNEE(S): Unilever PLC, UK; Unilever NV; Hindustan Lever Limited

SOURCE: PCT Int. Appl., 94 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

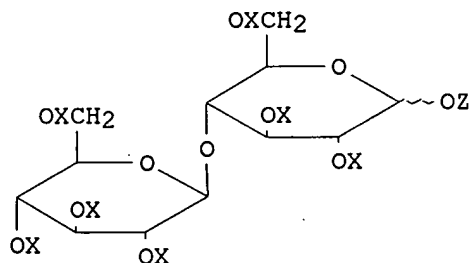
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------|------|----------|-----------------|----------|
| WO 2002032914 | A2 | 20020425 | WO 2001-EP10869 | 20010918 |

Searcher : Shears 571-272-2528

WO 2002032914 A3 20030828
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
AU 2001093827 A5 20020429 AU 2001-93827 20010918
EP 1358195 A2 20031105 EP 2001-974272 20010918
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
BR 2001014822 A 20040203 BR 2001-14822 20010918
JP 2004511565 T2 20040415 JP 2002-536295 20010918
US 2002072506 A1 20020613 US 2001-982077 20011017
PRIORITY APPLN. INFO.: GB 2000-25437 A 20001017
WO 2001-EP10869 W 20010918

GI



I

AB Acylated cellobiose compds. (CHME) which satisfy the formula I wherein X represents an acyl group (R-CO-) or H, Z represents an acyl group (R-CO-) or H and not more than a minority of X + Z residues represent H; R represents a saturated or unsatd., linear or branched chain hydrocarbon residue of 5 to 31 carbon atoms and R represents a residue, different from R, which is: (i) a saturated or unsatd., linear or branched chain hydrocarbon residue of 1 to 31 carbon atoms, or (ii) an aromatic hydrocarbon residue, or (iii) a cycloaliph. hydrocarbon, each optionally substituted. CHME esters are particularly suited to thickening or structuring a water-immiscible liquid, for example, a phase in a cosmetic formulation, such as antiperspirant or deodorant formulations, eg water in oil emulsions and especially translucent ones. Cellobiose heptanonoate benzoate ester (II) was prepared by the reaction of cellobiose heptanonoate (preparation given) with benzoyl chloride. II was used to gel water-immiscible cosmetic liqs.

IT 415681-14-0P 415681-15-1P 415681-16-2P
415681-17-3P 415681-18-4P 415681-19-5P
415681-20-8P 415681-21-9P 415681-22-0P
415681-23-1P 415681-24-2P 415681-25-3P
415681-26-4P 415681-27-5P 415681-28-6P

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415681-29-7P 415681-30-0P 415681-31-1P
415681-32-2P 415681-33-3P 415681-34-4P
415681-35-5P 415681-36-6P 415681-37-7P
415681-38-8P 415681-39-9P 415681-41-3P
415681-42-4P 415681-43-5P 415681-44-6P
415681-45-7P 415681-46-8P 415681-47-9P
415681-48-0P 415681-49-1P 415681-50-4P
415681-51-5P 415681-52-6P 415681-53-7P
415681-55-9P 415681-56-0P 415681-57-1P

RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of cellobiose esters for use in cosmetics)

IT 139432-95-4P, β -Cellobiose octanonanoate 415681-40-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of cellobiose esters for use in cosmetics)

L22 ANSWER 4 OF 26 CAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 26 Apr 2002

ACCESSION NUMBER: 2002:314436 CAPLUS

DOCUMENT NUMBER: 136:330337

TITLE: Cosmetic compositions containing cellobiose octanonanoate

INVENTOR(S): Grainger, Lynda; Gransden, Kathryn Elizabeth; Hopkinson, Andrew; Kowalski, Adam Jan; Webb, Nicholas; White, Michael Stephen

PATENT ASSIGNEE(S): Unilever PLC, UK; Unilever NV

SOURCE: Eur. Pat. Appl., 20 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|----------|
| EP 1199311 | A1 | 20020424 | EP 2001-307826 | 20010914 |
| EP 1199311 | B1 | 20040331 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | | | |
| AT 263178 | E | 20040415 | AT 2001-307826 | 20010914 |
| US 2002076385 | A1 | 20020620 | US 2001-978954 | 20011017 |
| US 6680048 | B2 | 20040120 | | |

PRIORITY APPLN. INFO.: GB 2000-25438 A 20001017

OTHER SOURCE(S): MARPAT 136:330337

AB Cellobiose esters and particularly α -cellobiose octanonanoate (I) has been found able to structure water-immiscible liqs. well, and in particular can produce clear structured emulsions. However, such emulsions tend to lose clarity or structural strength during storage. Deviating from I can result in impaired clarity and/or impaired hardness of emulsion sticks. However, acylated cellobiose which contains acyl substituents of formula -O-CO-R in which R represents an n-octyl residue and the percentage Y of the nonanoate acyl substituent -O-CO-R at the anomeric carbon is at least 60% and the percentage A of α anomer is greater than the β anomer and not higher than $A = 74.5 + 0.2Y$ when Y is up to 92% and not higher than $A = 161 - 0.74Y$ when Y is greater than 92%

Searcher : Shears 571-272-2528

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offers the production of sticks combining structurant stability with product clarity and hardness. A clear emulsion stick contained cyclomethicone DC245 17.6, polydecene 26.4, acylated cellobiose (A = 95.1%, and Y = 98.1%) 5.0, cetyl dimethicone copolyol 1.0, zirconal-50 40.0, and glycerol 10.0%.

IT 172585-66-9, α -Cellobiose octanonanoate

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(cosmetic compns. containing cellobiose octanonanoate)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 5 OF 26 CAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 08 Mar 2002

ACCESSION NUMBER: 2002:171914 CAPLUS

DOCUMENT NUMBER: 136:200415

TITLE: Methods of preparing disaccharide and trisaccharide C6-C12-fatty acid esters with high alpha content and materials therefrom

INVENTOR(S): Debenham, John S.; Buchanan, Charles M.; Wood, Matthew D.; Malcolm, Michael O.; Moore, Mary K.

PATENT ASSIGNEE(S): Eastman Chemical Company, USA

SOURCE: PCT Int. Appl., 39 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|------------|
| WO 2002018400 | A2 | 20020307 | WO 2001-US26446 | 20010824 |
| WO 2002018400 | A3 | 20020926 | | |
| W: JP | | | | |
| RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR | | | | |
| US 2002103369 | A1 | 20020801 | US 2001-933409 | 20010820 |
| US 6667397 | B2 | 20031223 | | |
| EP 1311521 | A2 | 20030521 | EP 2001-966174 | 20010824 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR | | | | |
| JP 2004507555 | T2 | 20040311 | JP 2002-523914 | 20010824 |
| US 2004087542 | A1 | 20040506 | US 2003-694242 | 20031027 |
| PRIORITY APPLN. INFO.: | | | US 2000-227990P | P 20000825 |
| | | | US 2001-933409 | A 20010820 |
| | | | WO 2001-US26446 | W 20010824 |

OTHER SOURCE(S): CASREACT 136:200415

AB The present invention provides chemical processes for the preparation of disaccharide and trisaccharide C6 to C12 fatty acid esters having a high alpha content. Yet still further, the invention provides materials prepared by the processes disclosed herein. Thus, esterification of cellobiose with nonanoic anhydride in the presence of methanesulfonic acid gave 95% yield of cellobiose octanonanoate. HPLC anal. indicated that the alpha content of the product was 82%.

IT 139432-95-4P 172585-66-9P 401813-71-6P

401813-72-7P

RL: IMF (Industrial manufacture); PUR (Purification or recovery); SPN

Searcher : Shears 571-272-2528

(Synthetic preparation); PREP (Preparation)
 (methods of preparing disaccharide and trisaccharide C6-C12-fatty acid
 esters via stereoselective esterification with high alpha content)

L22 ANSWER 6 OF 26 CAPLUS COPYRIGHT 2004 ACS on STN
 ED Entered STN: 20 Oct 2000
 ACCESSION NUMBER: 2000:741875 CAPLUS
 DOCUMENT NUMBER: 133:313389
 TITLE: Antiperspirant compositions
 INVENTOR(S): Esser, Isabelle Claire Helene Marie; Franklin, Kevin
 Ronald; Grainger, Lynda; Kowalski, Adam Jan; Rowe,
 Kathryn Elizabeth
 PATENT ASSIGNEE(S): Unilever PLC, UK; Unilever NV; Hindustan Lever Limited
 SOURCE: PCT Int. Appl., 95 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|------|----------|-----------------|------------|
| WO 2000061094 | A1 | 20001019 | WO 2000-GB1230 | 20000331 |
| W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| BR 2000009697 | A | 20020102 | BR 2000-9697 | 20000331 |
| EP 1169014 | A1 | 20020109 | EP 2000-920859 | 20000331 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| JP 2002541175 | T2 | 20021203 | JP 2000-610427 | 20000331 |
| AU 765415 | B2 | 20030918 | AU 2000-41276 | 20000331 |
| NZ 514301 | A | 20031031 | NZ 2000-514301 | 20000331 |
| US 6241976 | B1 | 20010605 | US 2000-547445 | 20000412 |
| ZA 2001007667 | A | 20020918 | ZA 2001-7667 | 20010918 |
| PRIORITY APPLN. INFO.: | | | GB 1999-8223 | A 19990412 |
| | | | WO 2000-GB1230 | W 20000331 |

AB An antiperspirant composition is a structured emulsion of a continuous phase containing water-immiscible liquid carrier plus a structurant, and a disperse

phase which is a solution of antiperspirant active in water or a mixture of water and water-soluble solvent. The structurant is a fully or partially esterified saccharide. The compns. give low visible residue when applied to skin or to clothing. A composition was prepared containing

Cyclomethicone DC 245

18, Polydecene 22.75, Finsolv TN 13.3, isostearyl alc. 12,
 N-lauryl-L-glutamic acid dibutylamide 4, Cetyl Dimethicone Copolyol 1, and
 Zirconal 50 40 parts by weight

IT 172585-66-9P, α -Cellobiose octanonanoate
 172585-67-0P, α -Cellobiose octadecanoate

RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (antiperspirant compns. containing esterified saccharide structurants)
 REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 7 OF 26 CAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 20 Oct 2000

ACCESSION NUMBER: 2000:741865 CAPLUS

DOCUMENT NUMBER: 133:313387

TITLE: Cosmetic structured emulsion compositions

INVENTOR(S): Franklin, Kevin Ronald; Hopkinson, Andrew

PATENT ASSIGNEE(S): Unilever PLC, UK; Unilever N.V.; Hindustan Lever Limited

SOURCE: PCT Int. Appl., 93 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|--|----------|-----------------|------------|
| WO 2000061081 | A2 | 20001019 | WO 2000-GB1236 | 20000331 |
| WO 2000061081 | A3 | 20020110 | | |
| W: | AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | |
| RW: | GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | |
| EP 1187597 | A2 | 20020320 | EP 2000-918999 | 20000331 |
| R: | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | |
| BR 2000009748 | A | 20020416 | BR 2000-9748 | 20000331 |
| JP 2002541172 | T2 | 20021203 | JP 2000-610414 | 20000331 |
| AU 769452 | B2 | 20040129 | AU 2000-39763 | 20000331 |
| US 6455056 | B1 | 20020924 | US 2000-547804 | 20000411 |
| US 2001055574 | A1 | 20011227 | US 2000-548309 | 20000412 |
| US 6426060 | B2 | 20020730 | | |
| ZA 2001008368 | A | 20021011 | ZA 2001-8368 | 20011011 |
| PRIORITY APPLN. INFO.: | | | GB 1999-8212 | A 19990412 |
| | | | WO 2000-GB1236 | W 20000331 |

AB A cosmetic composition is a structured emulsion of a continuous phase containing

water-immiscible liquid carrier plus a structurant, and a disperse phase which is a solution of antiperspirant active in a more polar, probably aqueous,

solvent. The structurant is a material which forms a network of fibers in the continuous phase, thereby gelling it. The structurant has an enthalpy of gelation in the carrier liquid or a test liquid with a magnitude of at least 30 kJ/mol. This min. enthalpy of gelation facilitates processing at conveniently accessible temps. and promotes stability. The enthalpy of

gelation was determined for a number of structuring agents such as α -cellobiose esters in 3 liqs. Antiperspirant compns. were given.

IT 172585-67-0, α -Cellobiose octadecanoate 172585-68-1
 , α -Cellobiose octaundecanoate 301684-31-1
 301684-34-4
 RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)
 (cosmetic structured emulsion compns.)

IT 172585-65-8P, α -Cellobiose octaoctanoate
 172585-66-9P, α -Cellobiose octanonanoate
 RL: BUU (Biological use, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (cosmetic structured emulsion compns.)

L22 ANSWER 8 OF 26 CAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 20 Oct 2000

ACCESSION NUMBER: 2000:741864 CAPLUS

DOCUMENT NUMBER: 133:313386

TITLE: Cosmetic compositions containing saccharide ester structurants

INVENTOR(S): Franklin, Kevin Ronald; Hopkinson, Andrew

PATENT ASSIGNEE(S): Unilever PLC, UK; Unilever NV; Hindustan Lever Limited

SOURCE: PCT Int. Appl., 102 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|--|----------|-----------------|------------|
| WO 2000061080 | A2 | 20001019 | WO 2000-GB1235 | 20000331 |
| WO 2000061080 | A3 | 20010503 | | |
| W: | AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | |
| RW: | GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | |
| EP 1175199 | A2 | 20020130 | EP 2000-918998 | 20000331 |
| R: | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | |
| US 6455056 | B1 | 20020924 | US 2000-547804 | 20000411 |
| US 2001055574 | A1 | 20011227 | US 2000-548309 | 20000412 |
| US 6426060 | B2 | 20020730 | | |
| ZA 2001008368 | A | 20021011 | ZA 2001-8368 | 20011011 |
| PRIORITY APPLN. INFO.: | | | GB 1999-8212 | A 19990412 |
| | | | WO 2000-GB1235 | W 20000331 |

AB A cosmetic composition contains a water-immiscible carrier liquid and a structurant therefor which is effective to gel the composition upon cooling from a temperature at which the structurant is a mobile solution in the carrier liquid. The carrier liquid may serve as a continuous phase in which a solid or

liquid disperse phase is suspended. The structurant is a fully or partially esterified saccharide which contains no more than eight monosaccharide residues and has an enthalpy of gelation in the carrier liquid with a magnitude of at least 45 kJ/mol. This min. enthalpy of gelation facilitates processing at conveniently accessible temps. and promotes stability. The enthalpy of gelation for a number of α -cellobiose esters was given and cosmetic gel formulations given.

IT 172585-65-8, α -Cellobiose octaoctanoate 172585-67-0

172585-68-1, α -Cellobiose octaundecanoate

301684-31-1 301684-34-4

RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)

(cosmetic compns. containing saccharide ester structurants)

IT 172585-66-9P, α -Cellobiose octanonanoate

RL: BUU (Biological use, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(cosmetic compns. containing saccharide ester structurants)

L22 ANSWER 9 OF 26 CAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 20 Oct 2000

ACCESSION NUMBER: 2000:741863 CAPLUS

DOCUMENT NUMBER: 133:313385

TITLE: Cosmetic compositions containing cellobiose ester structurants

INVENTOR(S): Franklin, Kevin Ronald; Kowalski, Adam Jan; Parrot, David Terence; Rowe, Kathryn Elizabeth; White, Michael Stephen

PATENT ASSIGNEE(S): Unilever PLC, UK; Unilever N.V.; Hindustan Lever Limited

SOURCE: PCT Int. Appl., 95 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------|--|----------|-----------------|----------|
| WO 2000061079 | A2 | 20001019 | WO 2000-GB1228 | 20000331 |
| W: | AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | |
| RW: | GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | |
| BR 2000009698 | A | 20020102 | BR 2000-9698 | 20000331 |
| EP 1171086 | A2 | 20020116 | EP 2000-918996 | 20000331 |
| R: | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | |
| JP 2002541171 | T2 | 20021203 | JP 2000-610412 | 20000331 |
| AU 769884 | B2 | 20040205 | AU 2000-39760 | 20000331 |
| US 6248312 | B1 | 20010619 | US 2000-548310 | 20000412 |
| US 2001033851 | A1 | 20011025 | US 2001-826494 | 20010404 |

10/694242

US 6458344 B2 20021001
ZA 2001008000 A 20020930 ZA 2001-8000 20010928
PRIORITY APPLN. INFO.: GB 1999-8202 A 19990412
WO 2000-GB1228 W 20000331
US 2000-548310 A3 20000412

OTHER SOURCE(S): MARPAT 133:313385

AB A cosmetic composition preferably an antiperspirant composition, in solid or soft-solid form has a continuous phase which contains a water-immiscible liquid carrier and also contains a structurant which is partially or fully esterified cellobiose. A number of cellobiose esters were prepared including

the nonanoate and decanoate and a number of cosmetic formulations given including antiperspirants.

IT 172585-65-8P, α -D-Glucopyranose, 4-O-[2,3,4,6-tetrakis-O-(1-oxooctyl)- β -D-glucopyranosyl]-, tetraoctanoate 172585-66-9P, α -D-Glucopyranose, 4-O-[2,3,4,6-tetrakis-O-(1-oxononyl)- β -D-glucopyranosyl]-, tetranonanoate 172585-67-0P 172585-68-1P, α -Cellobiose octaundecanoate 301684-31-1P 301684-34-4P 301807-46-5P

RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(cosmetic compns. containing cellobiose ester structurants)

L22 ANSWER 10 OF 26 CAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 07 Oct 1998

ACCESSION NUMBER: 1998:630199 CAPLUS

DOCUMENT NUMBER: 129:296458

TITLE: Carbon-13 NMR Investigations of the Orientational Order in a Columnar Liquid Crystal

AUTHOR(S): Huang, Zhi; Sandstroem, Dick; Henriksson, Ulf; Maliniak, Arnold

CORPORATE SOURCE: Division of Physical Chemistry Arrhenius Laboratory, Stockholm University, Stockholm, S-106 91, Swed.

SOURCE: Journal of Physical Chemistry B (1998), 102(43), 8395-8399

CODEN: JPCBFK; ISSN: 1089-5647

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A natural abundance C-13 NMR study of benzene dissolved in a columnar liquid crystal formed by the carbohydrate mesogen octa-O-decanoyl- β -cellobiose (Cel-II-10) is reported. The alignment of the mesophase in the magnetic field is sensitive to the field strength and to the thermal history of the sample. From C-13 line shapes, the director distribution functions and the mol. order parameter of the solute were estimated. In contrast to most columnar phases, Cel-II-10 aligns parallel to the magnetic field. The orientational order parameter of benzene is pos., which is expected for a columnar liquid crystal where the symmetry axis of the disk is aligned parallel to the column axis. However, an unexpected increase of the order parameter with increased temperature was observed

This

behavior is probably a consequence of an exchange process between different solvation sites in the columnar mesophase and indicates that the population in the environment with higher order parameter increases when the sample is heated.

IT 139559-65-2, Octa-O-decanoyl- β -cellobiose

RL: PRP (Properties)

(carbon-13 NMR investigations of orientational order of benzene in columnar liquid crystal)

REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 24 Sep 1998

ACCESSION NUMBER: 1998:605353 CAPLUS

DOCUMENT NUMBER: 129:303032

TITLE: Thermotropic liquid crystalline poly(vinyl ether)s with pendant cellobiose residues. Synthesis and mesophase structure

AUTHOR(S): Takaragi, Akira; Miyamoto, Takeaki; Minoda, Masahiko; Watanabe, Junji

CORPORATE SOURCE: Institute Chemical Research, Kyoto University, Uji, 611, Japan

SOURCE: Macromolecular Chemistry and Physics (1998), 199(9), 2071-2077

CODEN: MCHPES; ISSN: 1022-1352

PUBLISHER: Huethig & Wepf Verlag

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The synthesis of poly(vinyl ether)s (VEs) is described carrying pendant cellobiose heptadecanoate (CHD) residues and their mesomorphic properties were examined by DSC, polarization microscopy and x-ray diffraction. The poly(VE)s were synthesized through cationic polymerization of a

CHD-substituted

VE, i.e., 10-(vinylloxy)decyl-2,2',3,3',4',6,6'-hepta-O-decanoyl- β -D-cellobioside. From x-ray diffraction analyses, the mesophase at the poly(VE) proved to be closely similar to that of the star-shaped triplet derivative. The mesophase is characterized by the following features: it consists of discotic columns built up by a regular stacking of the pendant CHD residues, each polymer main chain is presumed to have an extended conformation due to the periodic stacking of the pendant CHD moieties into a columnar structure, and each polymer mol. independently forms 3 discotic columns, which surround the main chain, without any intercalation of the CHD pendants originating from different polymer mols.

IT 214343-21-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(monomer; preparation and polymerization of cellobiose-containing vinyl ether)

IT 139559-65-2

RL: PRP (Properties)

(preparation and crystalline properties of poly(vinyl ether) carrying pendant cellobiose heptadecanoate)

IT 214343-22-3P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and crystalline properties of poly(vinyl ether) carrying pendant cellobiose heptadecanoate)

IT 196098-40-5

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation and polymerization of cellobiose-containing vinyl ether monomer)

L22 ANSWER 12 OF 26 CAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 18 Jun 1998

ACCESSION NUMBER: 1998:373033 CAPLUS

DOCUMENT NUMBER: 129:41576

TITLE: Synthesis and thermal properties of liquid crystalline

side-chain polymers with pendant cellobiose residues

AUTHOR(S): Takaragi, Akira; Minoda, Masahiko; Miyamoto, Takeaki;

Watanabe, Junji

CORPORATE SOURCE: Institute Chemical Research, Kyoto University, Uji,

611, Japan

SOURCE: Macromolecular Chemistry and Physics (1998), 199(6),

1119-1126

CODEN: MCHPES; ISSN: 1022-1352

PUBLISHER: Huethig & Wepf Verlag

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Two series of thermotropic polymethacrylate (PM) samples with pendant cellobiose residues and an alkyl spacer (number of C atoms $n = 4$ and 10) were

synthesized, and their mesomorphic properties were investigated to elucidate the function of acylated cellobiose moieties as discotic mesogens by differential scanning calorimetry (DSC), polarization microscopy, and x-ray diffraction. The PM-4 samples with a short spacer showed 2 kinds of mesophases in a wide temperature region up to the degradation

temperature of the sample, i.e., $\approx 230^\circ$, whereas the PM-10 samples with a long spacer showed a single mesophase between 45 - 135° .

X-ray diffraction data suggested that both the mesophases formed by PM-4 and PM-10 belong to a kind of discotic columnar phases in which the side-chain mesogens form the discotic columns around the polymer backbone.

IT 139559-65-2 208181-92-4

RL: RCT (Reactant); RACT (Reactant or reagent)

(synthesis and polymerization of cellobiose methacrylate monomers for liquid-crystalline side-chain polymethacrylates)

IT 196098-40-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(synthesis and polymerization of cellobiose methacrylate monomers for liquid-crystalline side-chain polymethacrylates)

IT 208181-89-9P

RL: SPN (Synthetic preparation); PREP (Preparation)

(synthesis and polymerization of cellobiose methacrylate monomers for liquid-crystalline side-chain polymethacrylates)

IT 208181-95-7P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

(synthesis and thermal properties of liquid-crystalline side-chain polymethacrylates with cellobiose groups)

L22 ANSWER 13 OF 26 CAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 03 Dec 1997

ACCESSION NUMBER: 1997:752615 CAPLUS

DOCUMENT NUMBER: 128:68813

TITLE: Surface-imaging of frozen blue phases in a discotic liquid crystal with atomic force microscopy

AUTHOR(S): Hauser, Anton; Thieme, Mario; Saupe, Alfred; Heppke,

CORPORATE SOURCE: Gerd; Krueker, Daniel
 Max-Planck-Arbeitsgruppe Flüssigkristalline Systeme an
 der Martin-Luther-Universität Halle, Halle, D-06108,
 Germany

SOURCE: Journal of Materials Chemistry (1997), 7(11),
 2223-2229
 CODEN: JMACEP; ISSN: 0959-9428

PUBLISHER: Royal Society of Chemistry

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Discotic cholesteric phases with extremely small pitches were obtained
 with cellobiose derivs. as chiral dopants. These binary mixts. tend to
 form up to three distinct blue phases. An interesting property of these
 mixts. is that the blue phases can be supercooled to a glass-like state.
 Microscopic studies, reflection spectra, and Kossel diagrams all indicate
 that the three discotic blue phases BPD I, BPD II and BPD III are analogous
 to the known calamitic modifications. In addition to the optical studies,
 the authors studied the free surfaces of the frozen blue phases using atomic
 force microscopy.

IT 129530-43-4
 RL: PRP (Properties)
 (surface-imaging of frozen blue phases in perlauroyl
 cellobioside-hexakis[(nonylphenyl)ethynyl]benzene discotic liquid crystal
 mixture with atomic force microscopy)

REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 14 OF 26 CAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 21 Aug 1997

ACCESSION NUMBER: 1997:534219 CAPLUS

DOCUMENT NUMBER: 127:270764

TITLE: Oligosaccharide-based thermotropic liquid crystals.
 Part 4. Synthesis of cellobiose-based twin and triplet
 derivatives and their mesophase properties

AUTHOR(S): Takaragi, Akira; Sugiura, Makoto; Minoda, Masahiko;
 Miyamoto, Takeaki; Watanabe, Junji

CORPORATE SOURCE: Institute Chemical Research, Kyoto university, Uji,
 611, Japan

SOURCE: Macromolecular Chemistry and Physics (1997), 198(8),
 2583-2598

CODEN: MCHPES; ISSN: 1022-1352

PUBLISHER: Huethig & Wepf

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Previous work from this laboratory has shown that cellobiose octaalkanoate
 (COA)

functions as a thermotropic discotic mesogen, forming a hexagonal ordered
 columnar phase (Dho). In this work, we prepared the COA-based discotic twin
 and triplet derivs. and examined the mesomorphic properties of the derivs.
 by DSC, polarization microscopy, and XRD. In the former derivative, 2
 cellobiose heptadecanoate (CHD) mols. (monomers) are combined through an
 alkyl spacer of varying length by ether and ester linkages at the C-1
 position of the reducing end units of the monomers. Three CHD mols.
 having an alkyl spacer are connected with a coupling agent for the latter
 derivative. The results revealed that (i) all the twin derivs. form a
 distinct

discotic columnar phase, (ii) the thermal stability of the mesophases of the twins is enhanced, compared with that of the monomer, when the length of the flexible spacer is appropriate, (iii) the twins with a relatively short spacer form a discotic rectangular ordered (Dro) phase, while those with a longer spacer form a pseudo-Dho phase, (i.v.) the triplets also form a discotic columnar mesophase, but not a hexagonal ordered columnar (Dho) phase, (v) the thermal stability of the mesophases of the triplets strongly depends on the chemical nature of coupling cores, and (vi) the packing structures of the cellobiose cores within the columns of both derivs. are markedly different from that of the monomer.

IT 139559-65-2

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of thermotropic liquid crystalline cellobiose-based twin and triplet derivs.)

IT 196098-40-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of thermotropic liquid crystalline cellobiose-based twin and triplet derivs.)

IT 196098-45-0P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

(preparation of thermotropic liquid crystalline cellobiose-based twin and triplet derivs. and their phase transition and texture)

IT 196098-46-1P 196098-47-2P 196098-48-3P

196098-49-4P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

(preparation of thermotropic liquid crystalline cellobiose-based twin and triplet derivs. and their phase transition, texture, and lattice parameters)

L22 ANSWER 15 OF 26 CAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 19 Mar 1996

ACCESSION NUMBER: 1996:158867 CAPLUS

DOCUMENT NUMBER: 124:270996

TITLE: Deuterium NMR study of a probe molecule dissolved in a carbohydrate liquid crystal

AUTHOR(S): Sandstroem, D.; Stenutz, R.; Widmalm, G.; Maliniak, A.

CORPORATE SOURCE: Div. Physical Chem., Stockholm Univ., Stockholm, S-106-91, Swed.

SOURCE: Journal of the Chemical Society, Faraday Transactions (1996), 92(1), 111-15

CODEN: JCFTEV; ISSN: 0956-5000

PUBLISHER: Royal Society of Chemistry

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A deuterium NMR investigation of C6D6 dissolved in the discotic mesogen octa-O-decanoyl- β -cellobiose (Cel-II-10) is reported. The liquid-crystalline phase was found to be uniaxial in agreement with a previous

x-ray study. The influence of magnetic field strength and thermal treatment on the mesophase alignment was investigated. From 2H NMR lineshape simulations, the form of the director distribution function was estimated. In contrast to most discotics, the columns of Cel-II-10 orient

parallel to the external field indicating that the anisotropic diamagnetic susceptibility of this mesophase is pos. An increase of the quadrupolar splitting of C6D6 was observed when the sample was heated. This behavior is interpreted in terms of a fast dynamic equilibrium between different solvation sites in the carbohydrate liquid crystal. The 2H NMR spectra in the solid phase also indicated an exchange process between several sites.

IT 139559-65-2
 RL: PRP (Properties)
 (deuterium NMR study of a probe mol. dissolved in a carbohydrate liquid crystal)

L22 ANSWER 16 OF 26 CAPLUS COPYRIGHT 2004 ACS on STN
 ED Entered STN: 04 Jan 1996

ACCESSION NUMBER: 1996:9929 CAPLUS

DOCUMENT NUMBER: 124:176696

TITLE: Gelation of fully acylated cellobiose in alkane solution

AUTHOR(S): Ide, Nobuhiro; Fukuda, Takeshi; Miyamoto, Takeaki

CORPORATE SOURCE: Institute Chemical Research, Kyoto University, Uji, 611, Japan

SOURCE: Bulletin of the Chemical Society of Japan (1995), 68(12), 3423-8

CODEN: BCSJA8; ISSN: 0009-2673

PUBLISHER: Nippon Kagakkai

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Cellobiose octa(decanoate), a discotic columnar mesogen, was found to form in hexadecane solution various mol. assemblies such as a lyotropic liquid crystal of discotic columnar type, multimol. micelles, and a thermoreversible gel, depending on the concentration and temperature. The gelation,

observed even at very low concns., say, <0.01 weight fraction of the mesogenic

compound, is believed to proceed by local coagulation of long threadlike micelles into micro-liquid-crystallites, which work as cross-linked points combining the threadlike micelles. This will be a new type of gel that could be termed a "liquid crystalline gel".

IT 139559-65-2P, β -Cellobiose octa(decanoate)

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

(preparation and liquid crystalline formation during gelation of cellobiose octadecanoate)

L22 ANSWER 17 OF 26 CAPLUS COPYRIGHT 2004 ACS on STN
 ED Entered STN: 08 Nov 1995

ACCESSION NUMBER: 1995:905031 CAPLUS

DOCUMENT NUMBER: 124:102558

TITLE: Discotic columnar liquid crystals in oligosaccharide derivatives III. Anomeric effects on the thermo-mesomorphic properties of cellobiose octa-alkanoates

AUTHOR(S): Takada, A.; Ide, N.; Fukuda, T.; Miyamoto, T.; Yamagata, K.; Watanabe, J.

CORPORATE SOURCE: Inst. Chem. Res., Kyoto Univ., Uji, 611, Japan

SOURCE: Liquid Crystals (1995), 19(4), 441-8

CODEN: LICRE6; ISSN: 0267-8292
 PUBLISHER: Taylor & Francis
 DOCUMENT TYPE: Journal
 LANGUAGE: English

AB The α - and β -anomers of cellobiose octa-alkanoates with purities .gtorsim.95 per cent were prepared from β -cellobiose by two simple esterification methods. The C number n of the acyl substituents ranged from 7 to 10 in both anomers. Both α - and β -anomers exhibited two types of discotic columnar phases (Dho and Dro), depending on n and temperature, but their phase diagrams were appreciably different. Generally, the α -anomers formed more stable mesophases than the β -anomers. In the Dro phase of the β -anomers, the column axis was tilted from the normal to the disks, while no such tilting was observed in the other phases.

IT 139432-94-3P, β -Cellobiose octaoctanoate 139432-95-4P, β -Cellobiose octanonanoate 139559-65-2P, β -Cellobiose octadecanoate 153113-90-7P, β -Cellobiose octaundecanoate 172585-65-8P, α -Cellobiose octaoctanoate 172585-66-9P, α -Cellobiose octanonanoate 172585-67-0P, α -Cellobiose octadecanoate 172585-68-1P, α -Cellobiose octaundecanoate
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
 (preparation and anomeric effects on liquid crystal properties of column discotic)

L22 ANSWER 18 OF 26 CAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 02 Apr 1994

ACCESSION NUMBER: 1994:167050 CAPLUS

DOCUMENT NUMBER: 120:167050

TITLE: Chain-Length Dependence of the Mesomorphic Properties of Fully Decanoated Cellulose and Cellooligosaccharides

AUTHOR(S): Takada, Akihiko; Fujii, Kazunari; Watanabe, Junji; Fukuda, Takeshi; Miyamoto, Takeaki

CORPORATE SOURCE: Institute for Chemical Research, Kyoto University, Uji, 611, Japan

SOURCE: Macromolecules (1994), 27(6), 1651-3
 CODEN: MAMOBX; ISSN: 0024-9297

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The mesomorphic properties of fully decanoated cellulose and cellooligosaccharides were studied as a function of the d.p. Oligomeric derivs. with d.p. < 5 formed a discotic columnar phase, whereas polymeric derivs. with d.p. > 20 formed a hexagonal columnar phase. The mol. axis in the discotic columnar phase was perpendicular to the column axis, whereas that in the columnar phase of the polymeric derivs. was parallel to the column axis. The transition from the perpendicular to the parallel orientation of mol. axis should occur at a d.p. .apprx. 10, which is actually unobservable because crystallization proceeds for samples with 5 < d.p. < 20.

IT 128940-28-3

RL: PRP (Properties)

(mesomorphic properties of, chain length and mol. weight effects on)

L22 ANSWER 19 OF 26 CAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 19 Mar 1994

ACCESSION NUMBER: 1994:147566 CAPLUS

DOCUMENT NUMBER: 120:147566

TITLE: First observation of selective reflection and blue phases in chiral discotic liquid crystals

AUTHOR(S): Kruerke, D.; Kitzerow, H. S.; Heppke, G.; Vill, V.

CORPORATE SOURCE: Iwan-N.-Stranski-Inst., Berlin, D-10623, Germany

SOURCE: Berichte der Bunsen-Gesellschaft (1993), 97(10), 1371-5

CODEN: BBPCAX; ISSN: 0005-9021

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The helical structure was studied of discotic cholesteric liquid crystals using cellobiose derivs. as chiral dopants in a discotic nematic host. A characteristic property of the new mixts. is the occurrence of a glass-like state. Due to extremely small pitches, selective reflection was observed in a chiral discotic system. Discotic blue phases were observed

Microscopic studies, reflection spectra, and Kossel diagrams indicate the appearance of 3 discotic blue phases, BPD I, BPD II, and BPD III, which behave similar to the known calamitic modifications.

IT 139559-65-2 153113-90-7

RL: PRP (Properties)

(selective reflection and blue phases in chiral discotic mixture of hexakis(nonylphenylethynyl)benzene and)

L22 ANSWER 20 OF 26 CAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 28 Nov 1992

ACCESSION NUMBER: 1992:623566 CAPLUS

DOCUMENT NUMBER: 117:223566

TITLE: Columnar liquid crystals in oligosaccharide derivatives. II. Two types of discotic columnar liquid-crystalline phase of cellobiose alkanoates

AUTHOR(S): Takada, A.; Fukuda, T.; Miyamoto, T.; Yakoh, Y.; Watanabe, J.

CORPORATE SOURCE: Inst. Chem. Res., Kyoto Univ., Uji, 611, Japan

SOURCE: Liquid Crystals (1992), 12(2), 337-45

CODEN: LICRE6; ISSN: 0267-8292

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A series of cellobiose octaalkanoates, Cel-II-n (n is the C number of the alkyl chain), with n = 7-14 were prepared and their mesogenic properties examined by DSC, optical polarizing microscopy and x-ray diffraction. All of these compds. form enantiotropic discotic columnar phases, in which the columns are built up by a regular stacking of the cellobiose moieties and are packed in a 2-dimensional lattice. Homologs with n = 9-14 form the Dh0 phase only while the compound with n = 7 forms the Dr0 phase at lower temps. Structural parameters obtained from x-ray diffraction studies are presented for both phases.

IT 128940-28-3P 143036-62-8P 143074-16-2P

143074-17-3P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

(liquid crystal, preparation and properties and columnar discotic structure of)

IT 143062-39-9P 144238-71-1P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(liquid crystal, preparation and properties of)

L22 ANSWER 21 OF 26 CAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 11 Jul 1992

ACCESSION NUMBER: 1992:408310 CAPLUS

DOCUMENT NUMBER: 117:8310

TITLE: Preparation of cellobiose octa(n-alkanoate)s and their thermal properties

AUTHOR(S): Takada, Akihiko; Itoh, Takahiro; Fukuda, Takeshi; Miyamoto, Takeaki

CORPORATE SOURCE: Inst. Chem. Res., Kyoto Univ., Uji, 611, Japan

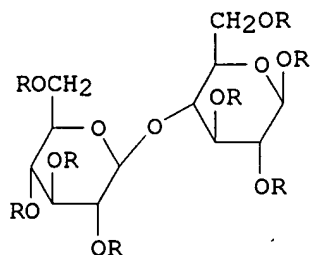
SOURCE: Bulletin of the Institute for Chemical Research, Kyoto University (1991), 69(2), 77-83

CODEN: BICRAS; ISSN: 0023-6071

DOCUMENT TYPE: Journal

LANGUAGE: English

GI



AB Cellobiose octa(n-alkanoate)s (CboA's) I [R = CO(CH₂)_nMe, n = 4-8, 10, 12] were prepared, and their thermal and structural properties were studied by DSC, polarization optical microscopy, and polarization IR. CboA's with an acyl length between 6 and 14 in carbon number were found to form a thermotropic liquid crystal. Comparison of their thermal data with those of cellulose tri(n-alkanoate)s indicated different structuring principles for the oligomer and polymer systems, consistently with the previous studies by x-ray diffraction. The polarization IR data were apparently consistent with the proposed discotic columnar structuring of CboA mols.

IT 139432-93-2P 139432-94-3P 139432-95-4P

139432-96-5P 139559-65-2P 141671-23-0P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and thermal properties as)

L22 ANSWER 22 OF 26 CAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 17 Apr 1992

ACCESSION NUMBER: 1992:163033 CAPLUS

DOCUMENT NUMBER: 116:163033

TITLE: Thermotropic liquid crystals based on oligosaccharides

AUTHOR(S): Fukuda, Takeshi; Sugiura, Makoto; Takada, Akihiko; Itoh, Takahiro; Ma, Yungdae; Minoda, Masahiko; Miyamoto, Takeaki

CORPORATE SOURCE: Inst. Chem. Res., Kyoto Univ., Uji, 611, Japan

SOURCE: Sen'i Gakkaishi (1991), 47(8), 452-5
CODEN: SENGAS; ISSN: 0037-9875
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Acylation or regio-selective alkylation of cello- and/or
chito-oligosaccharides provides a new family of thermotropic liquid
crystals. Some of the mesophase textures and thermal properties exhibited
by these compds are presented.
IT 128940-28-3
RL: PRP (Properties)
(texture and thermal properties of)

L22 ANSWER 23 OF 26 CAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 17 May 1991
ACCESSION NUMBER: 1991:196879 CAPLUS
DOCUMENT NUMBER: 114:196879
TITLE: Columnar liquid crystals in oligosaccharide
derivatives. I. Discotic columnar liquid crystals in
cellobiose octadecanoate and cellotriose
hendecadecanoate
AUTHOR(S): Itoh, T.; Takada, A.; Fukuda, T.; Miyamoto, T.; Yakoh,
Y.; Watanabe, J.
CORPORATE SOURCE: Inst. Chem. Res., Kyoto Univ., Kyoto, 611, Japan
SOURCE: Liquid Crystals (1991), 9(2), 221-8
CODEN: LICRE6; ISSN: 0267-8292
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Cellobiose octadecanoate and celotriose hendecadecanoate were synthesized
and their mesophase properties studied. Both ester derivs. show
enantiotropic mesophases below 100°. From the observations of
microscopic texture and x-ray pattern, the mesophase is hexagonal
columnar, in which the column is built up by a periodic stacking of the
cellobiose or cellotriose skeleton and packed into a 2-dimensional
hexagonal lattice. The mesophase is thus similar to the hexagonal ordered
columnar phase in a class of discotics, indicating that cellobiose and
cellotriose moieties can work as discotic mesogens.
IT 128940-28-3P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(liquid crystal, preparation and discotic columnar structure of)

L22 ANSWER 24 OF 26 CAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 23 Feb 1991
ACCESSION NUMBER: 1991:60717 CAPLUS
DOCUMENT NUMBER: 114:60717
TITLE: Alkyl glycoside fatty acid polyesters as fat
substitutes
INVENTOR(S): Winter, Daryl B.; Meyer, Richard S.; Root, Jeffrey M.;
Campbell, Michael L.
PATENT ASSIGNEE(S): Curtice-Burns, Inc., USA
SOURCE: U.S., 10 pp. Cont.-in-part of U.S. 4,840,815.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|----------|
| US 4942054 | A | 19900717 | US 1989-347264 | 19890503 |
| US 4840815 | A | 19890620 | US 1987-122188 | 19871118 |
| US 4840815 | B1 | 19970930 | | |
| WO 9013555 | A1 | 19901115 | WO 1989-US2222 | 19890522 |
| W: AU, JP, SU | | | | |
| RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE | | | | |
| AU 8937515 | A1 | 19901129 | AU 1989-37515 | 19890522 |
| WO 9013556 | A1 | 19901115 | WO 1989-US2679 | 19890619 |
| W: AU, JP, SU | | | | |
| RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE | | | | |
| AU 8944809 | A1 | 19901129 | AU 1989-44809 | 19890619 |
| EP 423246 | A1 | 19910424 | EP 1989-911975 | 19890619 |
| R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE | | | | |
| JP 04500975 | T2 | 19920220 | JP 1989-511122 | 19890619 |
| CA 1330078 | A1 | 19940607 | CA 1989-603212 | 19890619 |
| AU 9065476 | A1 | 19920317 | AU 1990-65476 | 19900822 |
| US 5550220 | A | 19960827 | US 1994-359942 | 19941220 |

PRIORITY APPLN. INFO.:

| | | |
|----------------|----|----------|
| US 1987-49625 | B2 | 19870513 |
| US 1987-122188 | A2 | 19871118 |
| US 1989-347264 | A | 19890503 |
| WO 1989-US2222 | A | 19890522 |
| US 1989-368675 | B1 | 19890619 |
| WO 1989-US2679 | A | 19890619 |
| WO 1990-US4769 | A | 19900822 |
| US 1991-770771 | B2 | 19911004 |
| US 1992-869288 | B1 | 19920415 |

AB Alkyl glycoside fatty acid polyesters with ≥ 4 ester groups are used as fat substitutes for frying and as components of foods (e.g. salad dressings). Et 4'-galactosyl lactose polyoleate was prepared by Na catalyzed inter-esterification of Et 4'-galactosyl lactose decaacetate and Me oleate. This was used as a fat substitute in salad dressings to give a product with satisfactory flavor and texture.

IT 131662-24-3

RL: BIOL (Biological study)
(as fat substitute in deep-frying)

L22 ANSWER 25 OF 26 CAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 13 Oct 1990

ACCESSION NUMBER: 1990:542720 CAPLUS

DOCUMENT NUMBER: 113:142720

TITLE: Cellobiose-based liquid crystals. (n-Alkyl β -D-cellobioside) hepta-n-alkanoates

AUTHOR(S): Takada, Akihiko; Ma, Yung Dae; Fukuda, Takeshi; Miyamoto, Takeaki

CORPORATE SOURCE: Inst. Chem. Res., Kyoto Univ., Uji, 611, Japan

SOURCE: Bulletin of the Institute for Chemical Research, Kyoto University (1990), 68(1), 21-9
CODEN: BICRAS; ISSN: 0023-6071

DOCUMENT TYPE: Journal

LANGUAGE: English

AB (N-alkyl β -D-cellobioside) hepta-n-alkanoates with varying lengths of alkyl and alkanoyl chains were synthesized via 4 steps starting with D-cellobiose octaacetate. These new compds. form a thermotropic liquid-crystal phase of smectic type when the alkyl and alkanoyl lengths are

appropriate. A rather minor difference in mol. structure, e.g., an ether vs. ester linkage at the 1-O position, could bring about a considerable difference in the temperature span or the stability of the mesophase.

IT 129530-33-2 129530-36-5 129530-37-6
129530-38-7 129530-39-8 129530-40-1
129530-41-2 129530-42-3 129530-43-4
129530-44-5 129530-45-6 129555-15-3

RL: PRP (Properties)
(liquid crystal properties of)

L22 ANSWER 26 OF 26 CAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 16 Sep 1990

ACCESSION NUMBER: 1990:499637 CAPLUS

DOCUMENT NUMBER: 113:99637

TITLE: Preparation and monolayer films of cellobiose alkyl esters

AUTHOR(S): Itoh, Takahiro; Matsumoto, Mutsuo; Suzuki, Hidematsu; Miyamoto, Takeaki

CORPORATE SOURCE: Tokai Senko K. K., Kyoto, 604, Japan

SOURCE: Bulletin of the Institute for Chemical Research, Kyoto University (1990), 68(1), 53-62
CODEN: BICRAS; ISSN: 0023-6071

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Cellobiose octa(decanoate) and cellobiose octa(octadecanoate) are prepared and used for studies on formation and fine structure of monolayers at the air-water interface. The surface pressure (π)-area (A) isotherms of monolayers of these cellobiose esters are similar to those of the corresponding cellulose esters previously reported, when A is expressed in nm² per alkyl chain instead of per glucose unit. Under electron microscopic examns. of the monolayers transferred from the water surface, the monolayers of the two cellobiose esters are inhomogeneous. This makes a sharp contrast to the fact that the cellulose esters, considered as the polymers of these cellobiose esters, form homogeneous monolayers. These results are discussed in comparison with those of stearic acid.

IT 128940-28-3P 128968-01-4P

RL: PREP (Preparation)

(monolayer films of, preparation and fine structure of, at air-water interface)

E1 THROUGH E94 ASSIGNED

FILE 'REGISTRY' ENTERED AT 15:34:15 ON 01 SEP 2004

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Random RNs/
Strs display
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415681-57-1/BI OR 445381-82-8/BI OR 445381-84-0/BI OR 445381-86
-2/BI OR 445381-88-4/BI)

=> d 1,5,48,50,51,52,54,55,48,64,68,69,70,72-76,80-82,93,94 ide can

L23 ANSWER 1 OF 94 REGISTRY COPYRIGHT 2004 ACS on STN

RN 445381-88-4 REGISTRY

CN β -D-Glucopyranose, 4-O-[2,3,4,6-tetrakis-O-(1-oxohexadecyl)- α -D-glucopyranosyl]-, tetrahexadecanoate (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C140 H262 O19

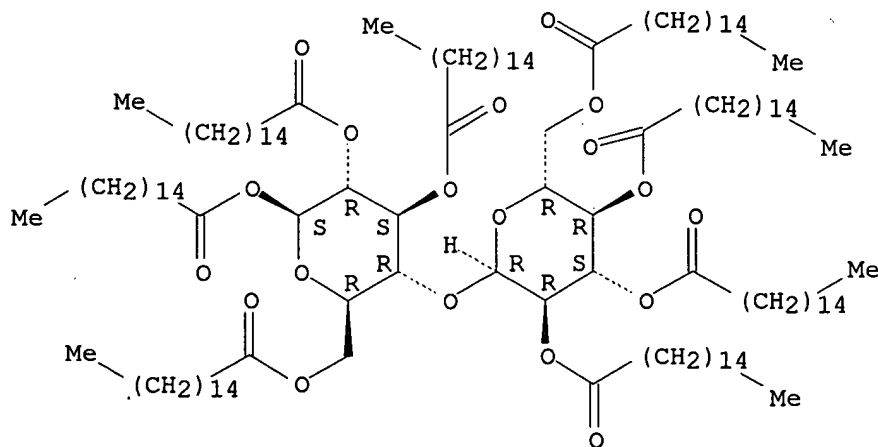
SR CA

LC STN Files: CA, CAPLUS, USPAT2, USPATFULL

DT.CA CAplus document type: Patent

RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)

Absolute stereochemistry.



1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 137:159011

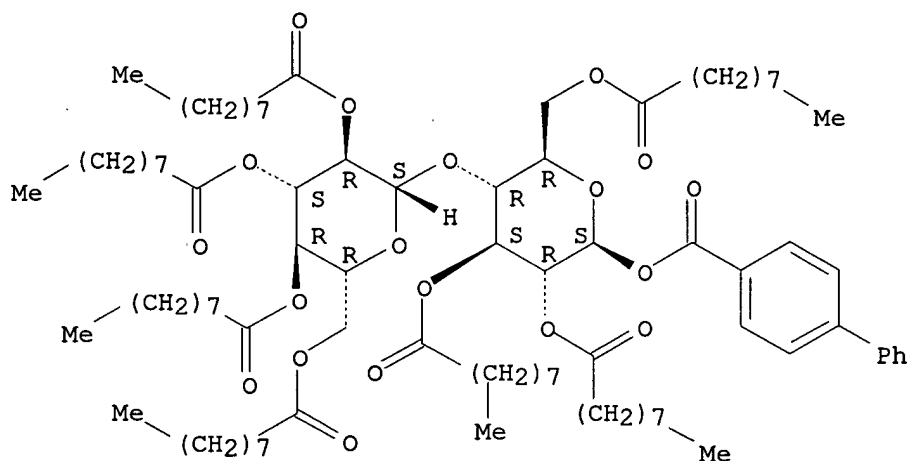
L23 ANSWER 5 OF 94 REGISTRY COPYRIGHT 2004 ACS on STN

Searcher : Shears 571-272-2528

10/694242

RN 415681-57-1 REGISTRY
CN β -D-Glucopyranose, 4-O-[2,3,4,6-tetrakis-O-(1-oxononyl)- β -D-glucopyranosyl]-, 1-[1,1'-biphenyl]-4-carboxylate 2,3,6-trinonanoate (9CI)
(CA INDEX NAME)
FS STEREOSEARCH
MF C88 H142 O19
SR CA
LC STN Files: CA, CAPLUS, USPATFULL
DT.CA Cplus document type: Patent
RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

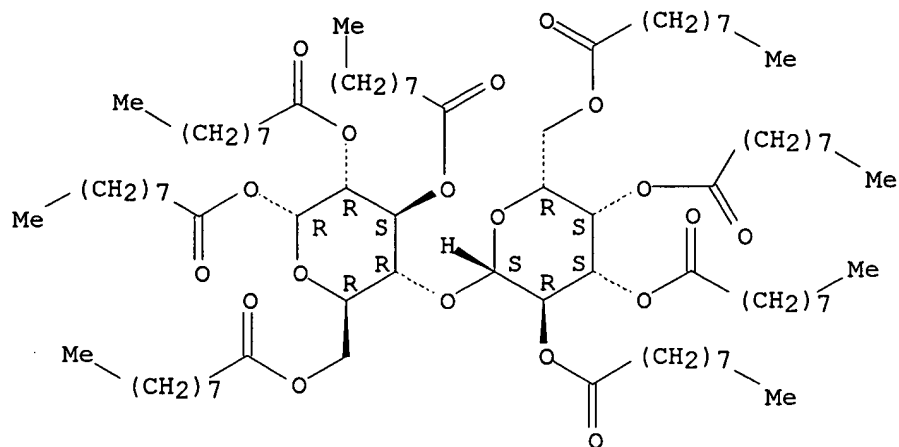
REFERENCE 1: 136:345481

L23 ANSWER 48 OF 94 REGISTRY COPYRIGHT 2004 ACS on STN
RN 401813-72-7 REGISTRY
CN α -D-Glucopyranose, 4-O-[2,3,4,6-tetrakis-O-(1-oxononyl)- β -D-galactopyranosyl]-, tetranonanoate (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C84 H150 O19
SR CA
LC STN Files: CA, CAPLUS, CASREACT, USPAT2, USPATFULL
DT.CA Cplus document type: Patent
RL.P Roles from patents: PREP (Preparation)

Absolute stereochemistry.

Searcher : Shears 571-272-2528

10/694242



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

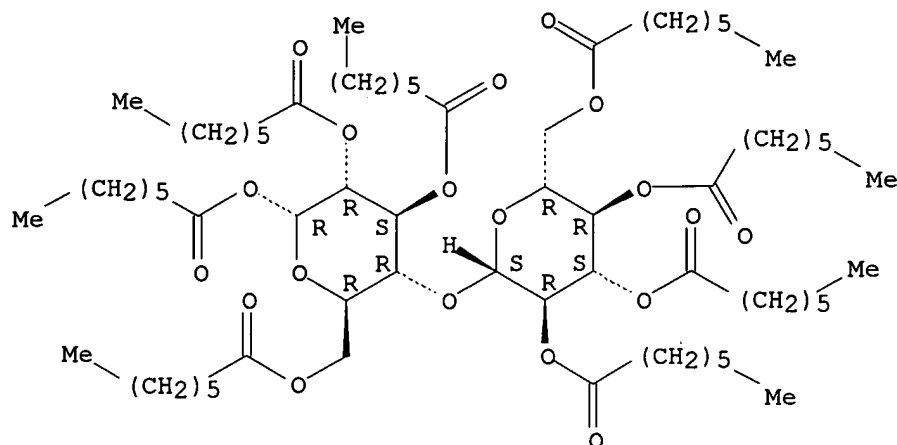
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 136:200415

L23 ANSWER 50 OF 94 REGISTRY COPYRIGHT 2004 ACS on STN
RN 301807-46-5 REGISTRY
CN α-D-Glucopyranose, 4-O-[2,3,4,6-tetrakis-O-(1-oxoheptyl)-β-D-glucopyranosyl]-, tetraheptanoate (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C68 H118 O19
SR CA
LC STN Files: CA, CAPLUS, USPAT2, USPATFULL
DT.CA Caplus document type: Patent
RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)

Absolute stereochemistry.

10/694242



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

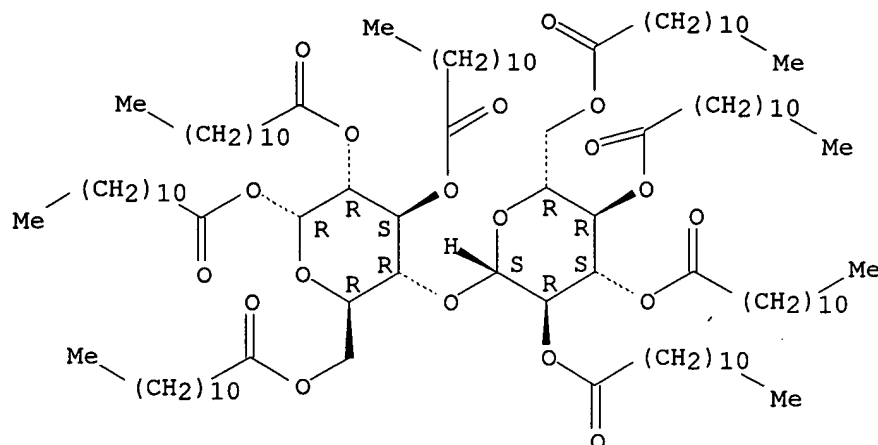
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 133:313385

L23 ANSWER 51 OF 94 REGISTRY COPYRIGHT 2004 ACS on STN
RN 301684-34-4 REGISTRY
CN α-D-Glucopyranose, 4-O-[2,3,4,6-tetrakis-O-(1-oxododecyl)-β-D-glucopyranosyl]-, tetradodecannaote (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C108 H198 O19
SR CA
LC STN Files: CA, CAPLUS, USPAT2, USPATFULL
DT.CA Caplus document type: Patent
RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); PRP (Properties); USES (Uses)

Absolute stereochemistry.

10/694242



3 REFERENCES IN FILE CA (1907 TO DATE)
3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 133:313387

REFERENCE 2: 133:313386

REFERENCE 3: 133:313385

L23 ANSWER 52 OF 94 REGISTRY COPYRIGHT 2004 ACS on STN

RN 301684-31-1 REGISTRY

CN α-D-Glucopyranose, 4-O-[2,3,4,6-tetrakis-O-(1-oxooctadecyl)-β-D-glucopyranosyl]-, tetraoctadecanoate (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C156 H294 O19

SR CA

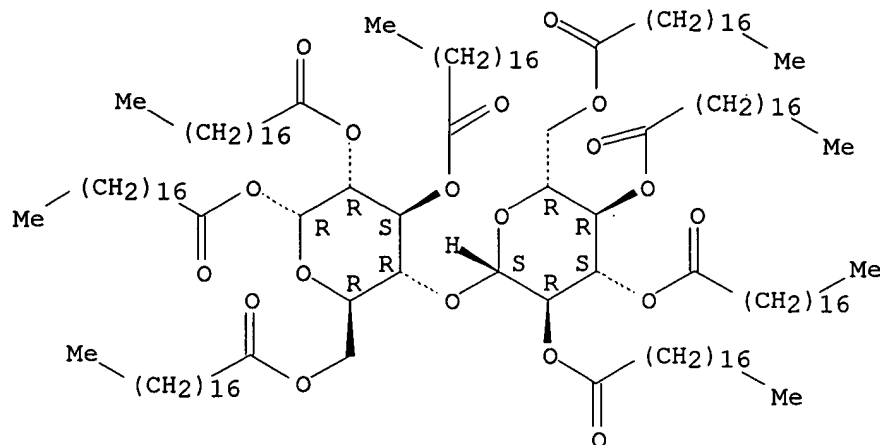
LC STN Files: CA, CAPLUS, USPAT2, USPATFULL

DT.CA Caplus document type: Patent

RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); PRP (Properties); USES (Uses)

Absolute stereochemistry.

10/694242



3 REFERENCES IN FILE CA (1907 TO DATE)
3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 133:313387

REFERENCE 2: 133:313386

REFERENCE 3: 133:313385

L23 ANSWER 54 OF 94 REGISTRY COPYRIGHT 2004 ACS on STN

RN 214343-21-2 REGISTRY

CN β -D-Glucopyranoside, 10-(ethenyloxy)decyl 4-O-[2,3,4,6-tetrakis-O-(1-oxodecyl)- β -D-glucopyranosyl]-, tris(decanoate) (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C94 H170 O19

CI COM

SR CA

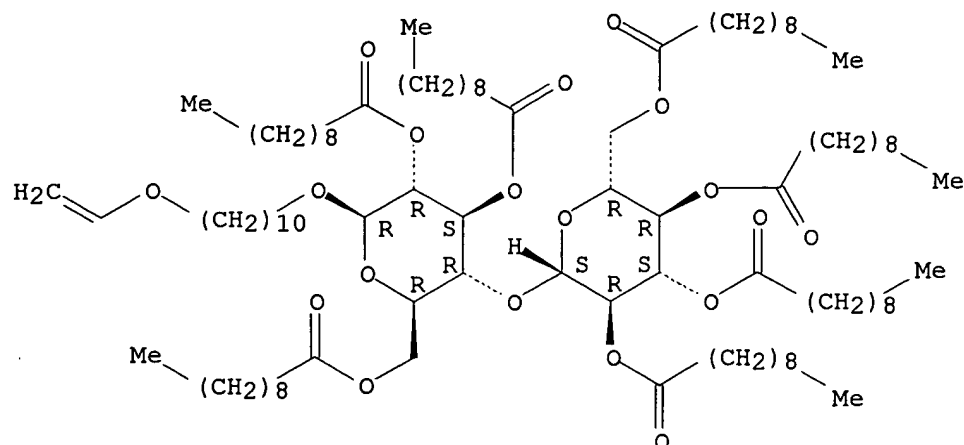
LC STN Files: CA, CAPLUS

DT.CA Cplus document type: Journal

RL.NP Roles from non-patents: PREP (Preparation); RACT (Reactant or reagent)

Absolute stereochemistry.

10/694242



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 129:303032

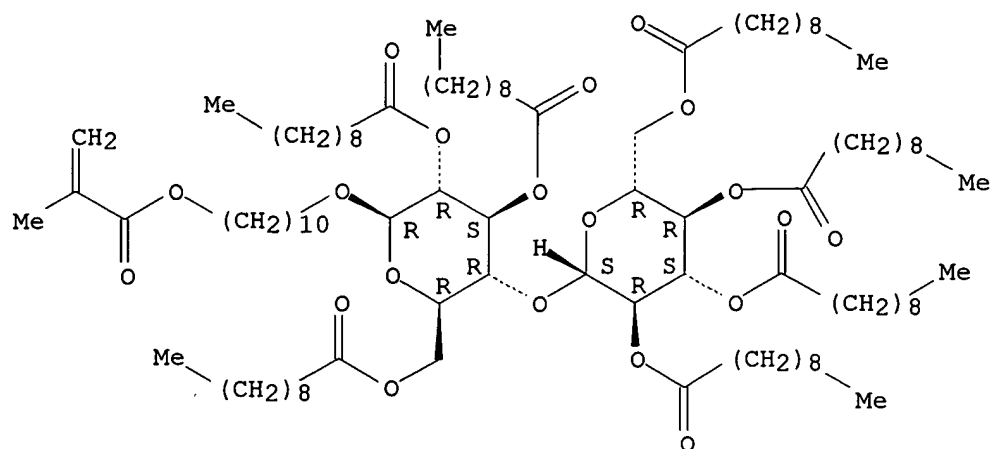
L23 ANSWER 55 OF 94 REGISTRY COPYRIGHT 2004 ACS on STN
RN 208181-95-7 REGISTRY
CN β -D-Glucopyranoside, 10-[(2-methyl-1-oxo-2-propenyl)oxy]decyl
4-O-[2,3,4,6-tetrakis-O-(1-oxodecyl)- β -D-glucopyranosyl]-,
2,3,6-tris(decanoate), homopolymer (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF (C96 H172 O20)x
CI PMS
PCT Polyacrylic, Polyether, Polyether formed
SR CA
LC STN Files: CA, CAPLUS
DT.CA Cplus document type: Journal
RL.NP Roles from non-patents: PREP (Preparation); PRP (Properties)

CM 1

CRN 208181-94-6
CMF C96 H172 O20

Absolute stereochemistry.

10/694242

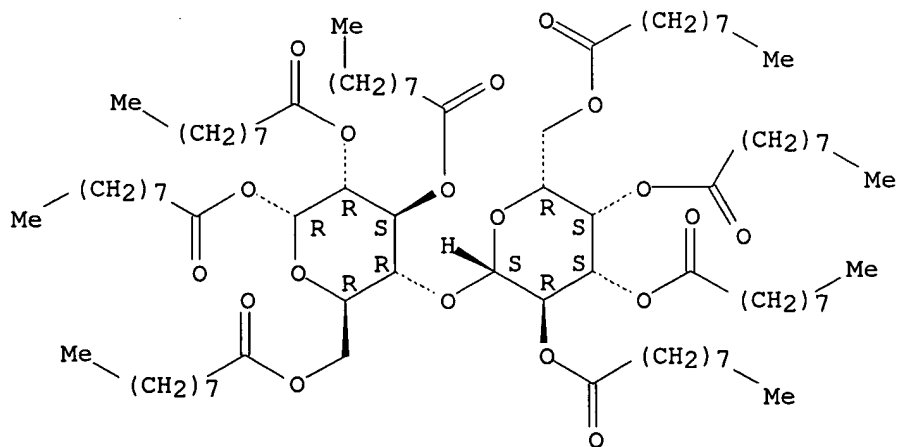


1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 129:41576

L23 ANSWER 48 OF 94 REGISTRY COPYRIGHT 2004 ACS on STN
RN 401813-72-7 REGISTRY
CN α -D-Glucopyranose, 4-O-[2,3,4,6-tetrakis-O-(1-oxononyl)- β -D-galactopyranosyl]-, tetranonanoate (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C84 H150 O19
SR CA
LC STN Files: CA, CAPLUS, CASREACT, USPAT2, USPATFULL
DT.CA Caplus document type: Patent
RL.P Roles from patents: PREP (Preparation)

Absolute stereochemistry.



Searcher : Shears 571-272-2528

10/694242

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 136:200415

L23 ANSWER 64 OF 94 REGISTRY COPYRIGHT 2004 ACS on STN

RN 172585-68-1 REGISTRY

CN α -D-Glucopyranose, 4-O-[2,3,4,6-tetrakis-O-(1-oxoundecyl)- β -D-glucopyranosyl]-, tetraundecanoate (9CI) (CA INDEX NAME)

OTHER NAMES:

CN α -Cellobiose octaundecanoate

FS STEREOSEARCH

MF C100 H182 O19

SR CA

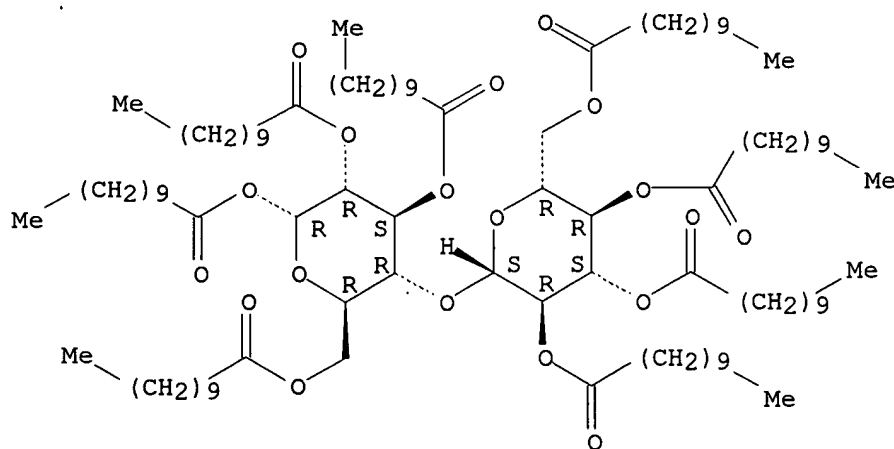
LC STN Files: CA, CAPLUS, USPAT2, USPATFULL

DT.CA Caplus document type: Journal; Patent

RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); PRP (Properties); USES (Uses)

RL.NP Roles from non-patents: PREP (Preparation); PROC (Process); PRP (Properties)

Absolute stereochemistry.



4 REFERENCES IN FILE CA (1907 TO DATE)
4 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 133:313387

REFERENCE 2: 133:313386

REFERENCE 3: 133:313385

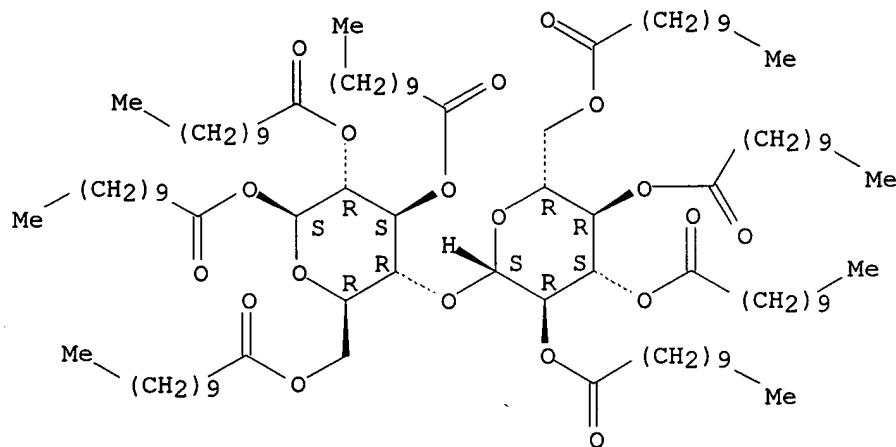
REFERENCE 4: 124:102558

Searcher : Shears 571-272-2528

10/694242

L23 ANSWER 68 OF 94 REGISTRY COPYRIGHT 2004 ACS on STN
RN 153113-90-7 REGISTRY
CN β -D-Glucopyranose, 4-O-[2,3,4,6-tetrakis-O-(1-oxoundecyl)- β -D-glucopyranosyl]-, tetraundecanoate (9CI) (CA INDEX NAME)
OTHER NAMES:
CN β -Cellobiose octaundecanoate
FS STEREOSEARCH
MF C100 H182 O19
SR CA
LC STN Files: CA, CAPLUS
DT.CA Caplus document type: Journal
RL.NP Roles from non-patents: PREP (Preparation); PROC (Process); PRP (Properties)

Absolute stereochemistry.



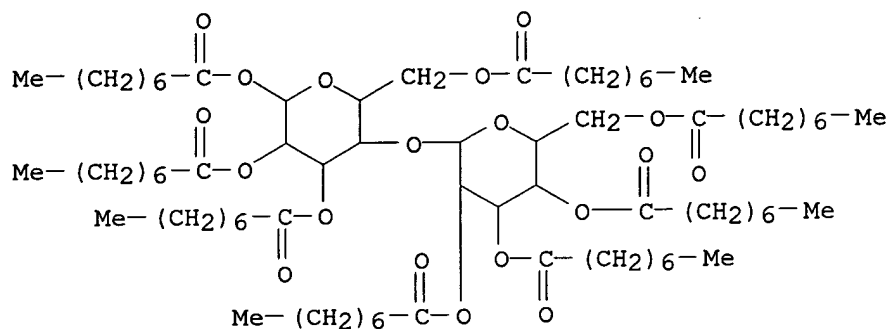
2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 124:102558

REFERENCE 2: 120:147566

L23 ANSWER 69 OF 94 REGISTRY COPYRIGHT 2004 ACS on STN
RN 144238-71-1 REGISTRY
CN D-Glucopyranose, 4-O-[2,3,4,6-tetrakis-O-(1-oxooctyl)- β -D-glucopyranosyl]-, tetraoctanoate (9CI) (CA INDEX NAME)
MF C76 H134 O19
SR CA
LC STN Files: CA, CAPLUS
DT.CA Caplus document type: Journal
RL.NP Roles from non-patents: PREP (Preparation); PRP (Properties)

10/694242



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 117:223566

L23 ANSWER 70 OF 94 REGISTRY COPYRIGHT 2004 ACS on STN

RN 143074-17-3 REGISTRY

CN D-Glucopyranose, 4-O-[2,3,4,6-tetrakis-O-(1-oxopentadecyl)-β-D-glucopyranosyl]-, tetrapentadecanoate (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C132 H246 O19

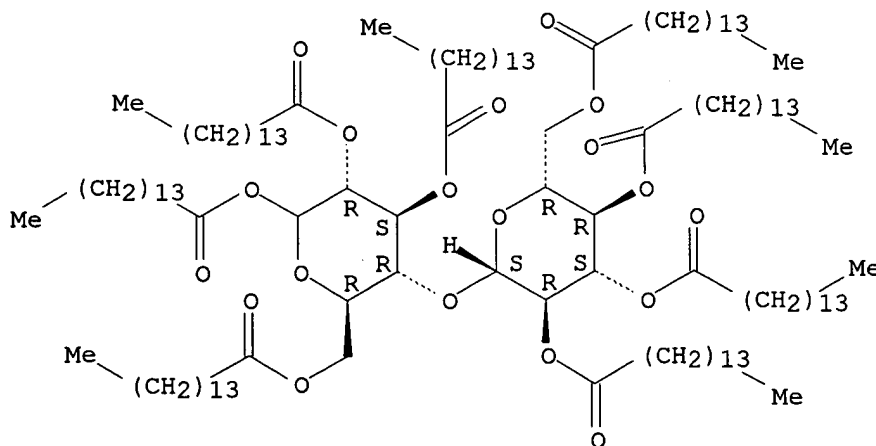
SR CA

LC STN Files: CA, CAPLUS

DT.CA Caplus document type: Journal

RL.NP Roles from non-patents: PREP (Preparation); PRP (Properties)

Absolute stereochemistry.



1 REFERENCES IN FILE CA (1907 TO DATE)

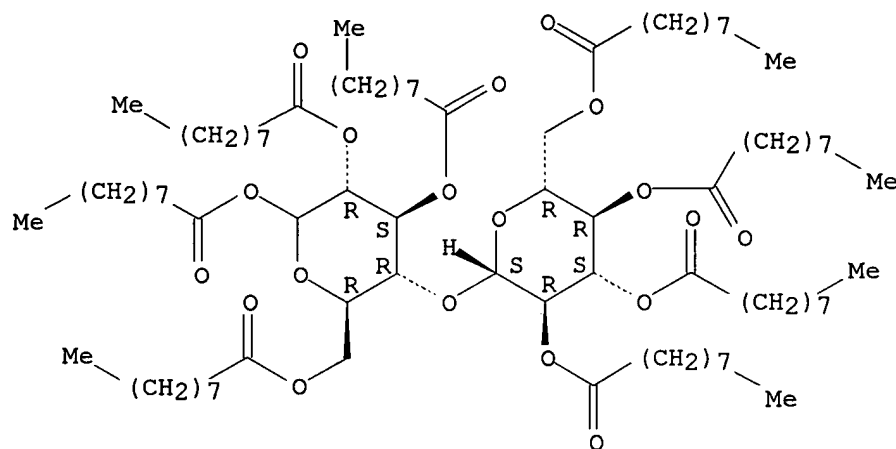
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

Searcher : Shears 571-272-2528

REFERENCE 1: 117:223566

L23 ANSWER 72 OF 94 REGISTRY COPYRIGHT 2004 ACS on STN
 RN 143062-39-9 REGISTRY
 CN D-Glucopyranose, 4-O-[2,3,4,6-tetrakis-O-(1-oxononyl)-β-D-glucopyranosyl]-, tetranonanoate (9CI) (CA INDEX NAME)
 FS STEREOSEARCH
 MF C84 H150 O19
 SR CA
 LC STN Files: CA, CAPLUS
 DT.CA Caplus document type: Journal
 RL.NP Roles from non-patents: PREP (Preparation); PRP (Properties)

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

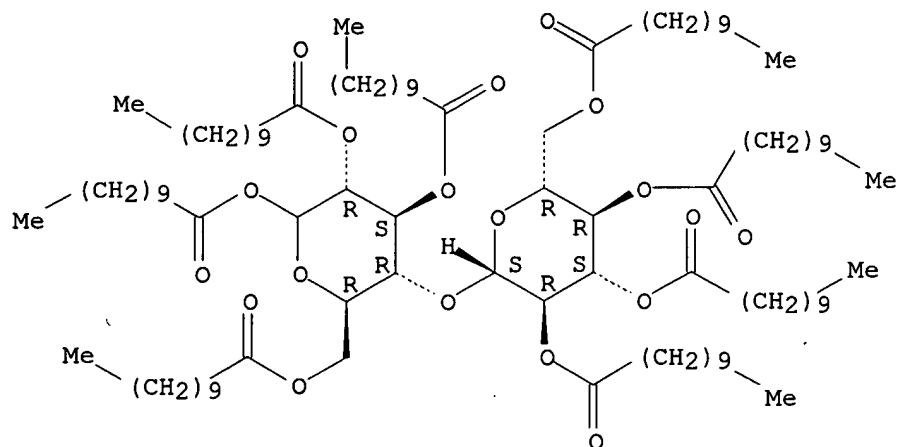
1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 117:223566

L23 ANSWER 73 OF 94 REGISTRY COPYRIGHT 2004 ACS on STN
 RN 143036-62-8 REGISTRY
 CN D-Glucopyranose, 4-O-[2,3,4,6-tetrakis-O-(1-oxoundecyl)-β-D-glucopyranosyl]-, tetraundecanoate (9CI) (CA INDEX NAME)
 FS STEREOSEARCH
 MF C100 H182 O19
 SR CA
 LC STN Files: CA, CAPLUS
 DT.CA Caplus document type: Journal
 RL.NP Roles from non-patents: PREP (Preparation); PRP (Properties)

Absolute stereochemistry.

10/694242



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 117:223566

L23 ANSWER 74 OF 94 REGISTRY COPYRIGHT 2004 ACS on STN

RN 141671-23-0 REGISTRY

CN β -D-Glucopyranose, 4-O-[2,3,4,6-tetrakis-O-(1-oxotetradecyl)- β -D-glucopyranosyl]-, tetratetradecanoate (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C124 H230 O19

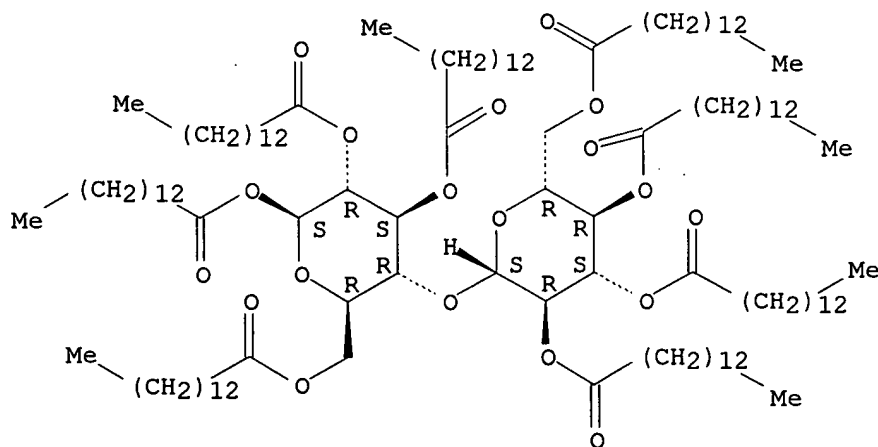
SR CA

LC STN Files: CA, CAPLUS

DT.CA Caplus document type: Journal

RL.NP Roles from non-patents: PREP (Preparation)

Absolute stereochemistry.



1 REFERENCES IN FILE CA (1907 TO DATE)

Searcher : Shears 571-272-2528

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 117:8310

L23 ANSWER 75 OF 94 REGISTRY COPYRIGHT 2004 ACS on STN

RN 139559-65-2 REGISTRY

CN β -D-Glucopyranose, 4-O-[2,3,4,6-tetrakis-O-(1-oxodecyl)- β -D-glucopyranosyl]-, tetrakis(decanoate) (9CI) (CA INDEX NAME)

OTHER NAMES:

CN β -Cellobiose octadecanoateCN Octa-O-decanoyl- β -cellobiose

FS STEREOSEARCH

DR 153113-89-4

MF C92 H166 O19

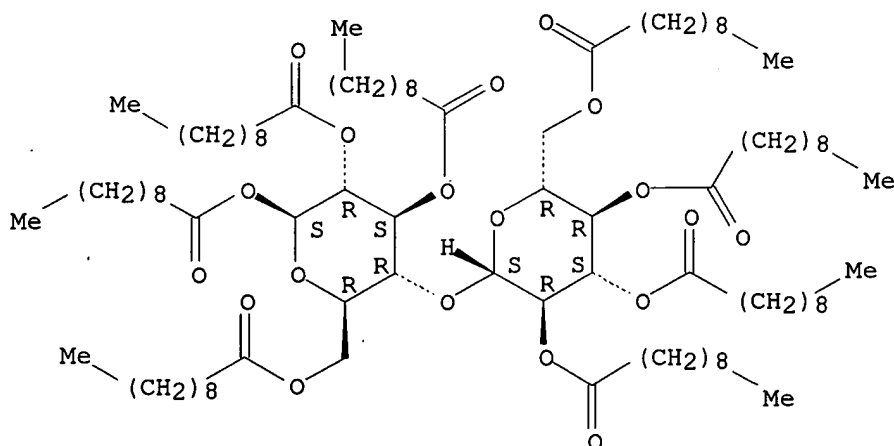
SR CA

LC STN Files: CA, CAPLUS

DT.CA Caplus document type: Journal

RL.NP Roles from non-patents: PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent)

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

9 REFERENCES IN FILE CA (1907 TO DATE)

9 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 129:303032

REFERENCE 2: 129:296458

REFERENCE 3: 129:41576

REFERENCE 4: 127:270764

10/694242

REFERENCE 5: 124:270996

REFERENCE 6: 124:176696

REFERENCE 7: 124:102558

REFERENCE 8: 120:147566

REFERENCE 9: 117:8310

L23 ANSWER 76 OF 94 REGISTRY COPYRIGHT 2004 ACS on STN

RN 139432-96-5 REGISTRY

CN β -D-Glucopyranose, 4-O-[2,3,4,6-tetrakis-O-(1-oxododecyl)- β -D-glucopyranosyl]-, tetradodecanoate (9CI) (CA INDEX NAME)

FS STEREOSEARCH

DR 153113-91-8

MF C108 H198 O19

SR CA

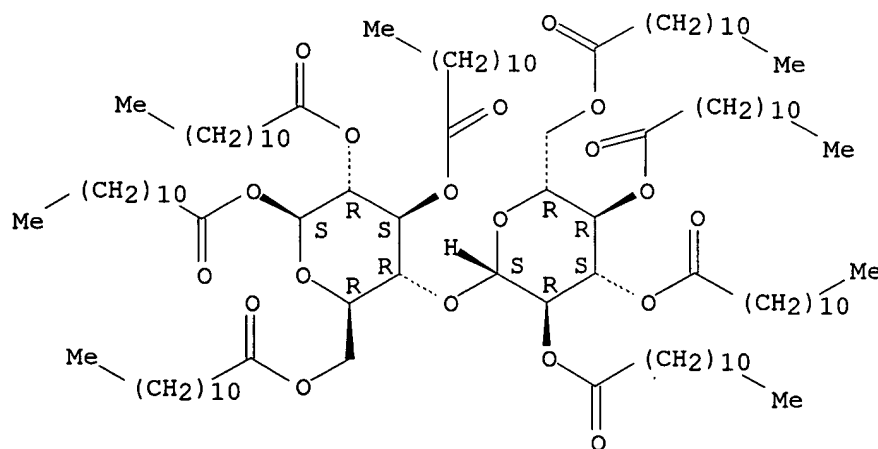
LC STN Files: BEILSTEIN*, CA, CAPLUS

(*File contains numerically searchable property data)

DT.CA Caplus document type: Journal

RL.NP Roles from non-patents: PREP (Preparation)

Absolute stereochemistry.



1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 117:8310

L23 ANSWER 80 OF 94 REGISTRY COPYRIGHT 2004 ACS on STN

RN 131662-24-3 REGISTRY

CN D-Glucopyranoside, ethyl 4-O-[2,3,4,6-tetrakis-O-(1-oxooctadecyl)- β -D-galactopyranosyl]-, trioctadecanoate (9CI) (CA INDEX NAME)

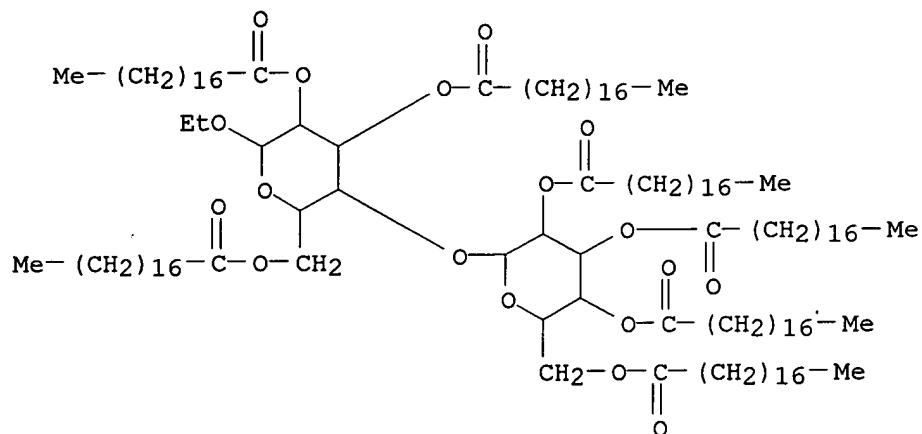
MF C140 H264 O18

SR CA

Searcher : Shears 571-272-2528

10/694242

LC STN Files: CA, CAPLUS, USPATFULL
DT.CA CPlus document type: Patent
RL.P Roles from patents: BIOL (Biological study)



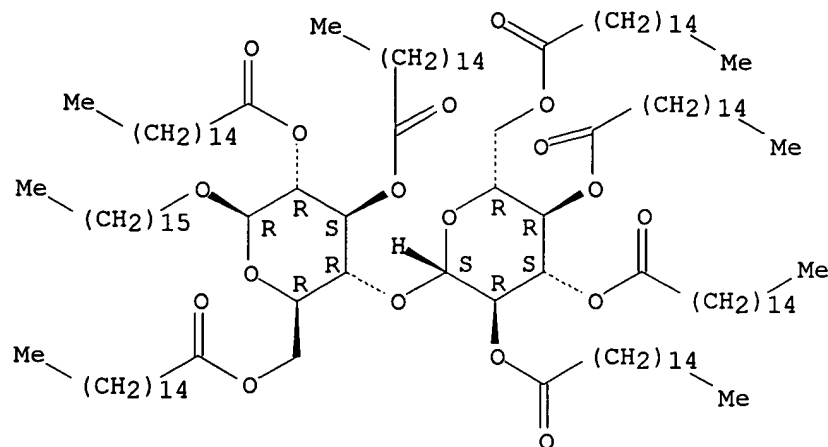
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 114:60717

L23 ANSWER 81 OF 94 REGISTRY COPYRIGHT 2004 ACS on STN
RN 129555-15-3 REGISTRY
CN β -D-Glucopyranoside, hexadecyl 4-O-[2,3,4,6-tetrakis-O-(1-oxohexadecyl)- β -D-glucopyranosyl]-, trihexadecanoate (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C140 H264 O18
SR CA
LC STN Files: CA, CAPLUS
DT.CA CPlus document type: Journal
RL.NP Roles from non-patents: PRP (Properties)

Absolute stereochemistry.

10/694242



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 113:142720

L23 ANSWER 82 OF 94 REGISTRY COPYRIGHT 2004 ACS on STN

RN 129530-45-6 REGISTRY

CN β -D-Glucopyranoside, octadecyl 4-O-[2,3,4,6-tetrakis-O-(1-oxooctadecyl)- β -D-glucopyranosyl]-, trioctadecanoate (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C156 H296 O18

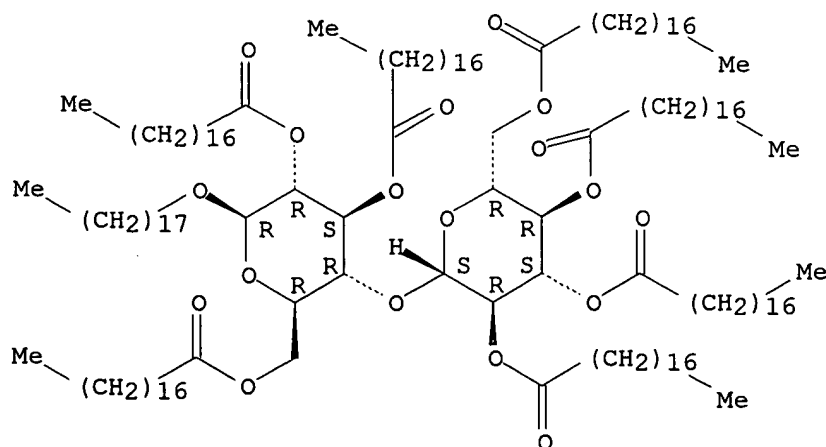
SR CA

LC STN Files: CA, CAPLUS

DT.CA Caplus document type: Journal

RL.NP Roles from non-patents: PRP (Properties)

Absolute stereochemistry.



Searcher : Shears 571-272-2528

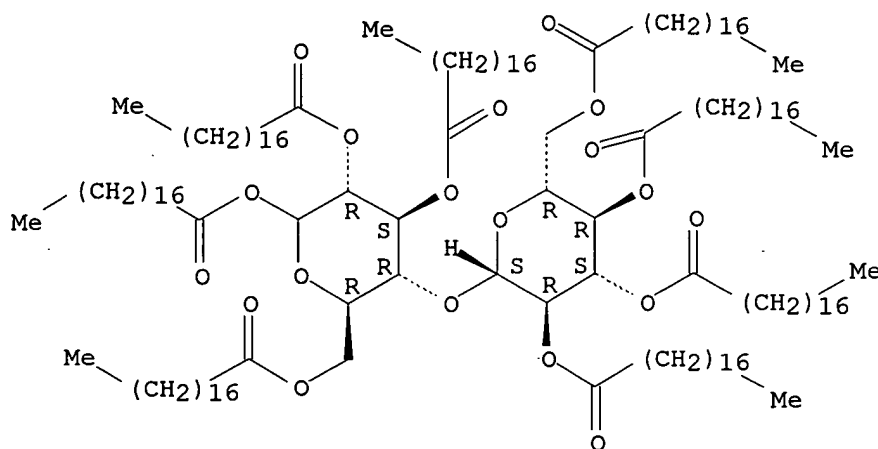
10/694242

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 113:142720

L23 ANSWER 93 OF 94 REGISTRY COPYRIGHT 2004 ACS on STN
RN **128968-01-4** REGISTRY
CN D-Glucopyranose, 4-O-[2,3,4,6-tetrakis-O-(1-oxooctadecyl)- β -D-glucopyranosyl]-, tetraoctadecanoate (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C156 H294 O19
SR CA
LC STN Files: CA, CAPLUS
DT.CA Caplus document type: Journal
RL.NP Roles from non-patents: PREP (Preparation)

Absolute stereochemistry.



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

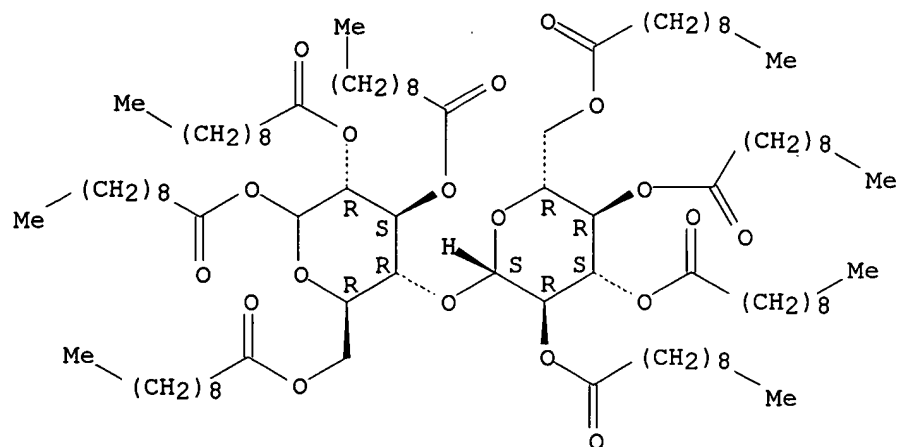
REFERENCE 1: 113:99637

L23 ANSWER 94 OF 94 REGISTRY COPYRIGHT 2004 ACS on STN
RN **128940-28-3** REGISTRY
CN D-Glucopyranose, 4-O-[2,3,4,6-tetrakis-O-(1-oxodecyl)- β -D-glucopyranosyl]-, tetrakis(decanoate) (9CI) (CA INDEX NAME)
FS STEREOSEARCH
DR 153601-20-8
MF C92 H166 O19
SR CA
LC STN Files: CA, CAPLUS
DT.CA Caplus document type: Journal
RL.NP Roles from non-patents: PREP (Preparation); PRP (Properties)

Absolute stereochemistry.

Searcher : Shears 571-272-2528

10/694242



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

5 REFERENCES IN FILE CA (1907 TO DATE)
5 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 120:167050

REFERENCE 2: 117:223566

REFERENCE 3: 116:163033

REFERENCE 4: 114:196879

REFERENCE 5: 113:99637

FILE 'CAOLD' ENTERED AT 15:36:48 ON 01 SEP 2004
L24 0 S L23

FILE 'USPATFULL' ENTERED AT 15:36:55 ON 01 SEP 2004
L25 12 S L23

L25 ANSWER 1 OF 12 USPATFULL on STN

ACCESSION NUMBER: 2004:114696 USPATFULL

TITLE: Disaccharide and trisaccharide C6-C12 fatty acid esters
with high alpha content

INVENTOR(S): Debenham, John Steele, Scotch Plains, NJ, UNITED STATES
Buchanan, Charles Michael, Kingsport, TN, UNITED STATES
Wood, Matthew Davie, Gray, TN, UNITED STATES
Malcolm, Michael Orlando, Kingsport, TN, UNITED STATES
Moore, Mary Kathleen, Jonesborough, TN, UNITED STATES

| | NUMBER | KIND | DATE |
|-----------------------|--|------|---------------|
| PATENT INFORMATION: | US 2004087542 | A1 | 20040506 |
| APPLICATION INFO.: | US 2003-694242 | A1 | 20031027 (10) |
| RELATED APPLN. INFO.: | Continuation of Ser. No. US 2001-933409, filed on 20 | | |

Searcher : Shears 571-272-2528

10/694242

Aug 2001, GRANTED, Pat. No. US 6667397

| | NUMBER | DATE |
|--|--|---------------|
| PRIORITY INFORMATION: | US 2000-227990P | 20000825 (60) |
| DOCUMENT TYPE: | Utility | |
| FILE SEGMENT: | APPLICATION | |
| LEGAL REPRESENTATIVE: | NEEDLE & ROSENBERG, P.C., SUITE 1000, 999 PEACHTREE STREET, ATLANTA, GA, 30309-3915 | |
| NUMBER OF CLAIMS: | 20 | |
| EXEMPLARY CLAIM: | 1 | |
| NUMBER OF DRAWINGS: | 6 Drawing Page(s) | |
| LINE COUNT: | 1089 | |
| CAS INDEXING IS AVAILABLE FOR THIS PATENT. | | |
| AB | The present invention provides disaccharide and trisaccharide C.sub.6 to C.sub.12 mixed fatty acid esters having a high alpha content. Yet still further, the invention provides chemical processes for the preparation of the materials disclosed herein. | |

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L25 ANSWER 2 OF 12 USPATFULL on STN

| | | |
|---------------------|---|-----------|
| ACCESSION NUMBER: | 2003:92684 | USPATFULL |
| TITLE: | Antiperspirant formulations | |
| INVENTOR(S): | Abend, Sven Jorg Willi Max, Bebington, UNITED KINGDOM Courtois, Jean-Philippe Andre Roger, Bebington, UNITED KINGDOM Cropper, Martin Peter, Bebington, UNITED KINGDOM Fletcher, Neil Robert, Bebington, UNITED KINGDOM Grainger, Lynda, Bebington, UNITED KINGDOM Murphy, Angela Mary, Bebington, UNITED KINGDOM | |
| PATENT ASSIGNEE(S): | Unilever Home & Personal Care USA, Division of Conopco, Inc. (non-U.S. corporation) | |

| | NUMBER | KIND | DATE |
|---------------------|---------------|------|---------------|
| PATENT INFORMATION: | US 2003064041 | A1 | 20030403 |
| | US 6737048 | B2 | 20040518 |
| APPLICATION INFO.: | US 2002-96808 | A1 | 20020313 (10) |

| | NUMBER | DATE |
|--|--|----------|
| PRIORITY INFORMATION: | GB 2001-6601 | 20010316 |
| DOCUMENT TYPE: | Utility | |
| FILE SEGMENT: | APPLICATION | |
| LEGAL REPRESENTATIVE: | UNILEVER, PATENT DEPARTMENT, 45 RIVER ROAD, EDGEWATER, NJ, 07020 | |
| NUMBER OF CLAIMS: | 49 | |
| EXEMPLARY CLAIM: | 1 | |
| LINE COUNT: | 1125 | |
| CAS INDEXING IS AVAILABLE FOR THIS PATENT. | | |
| AB | Structured antiperspirant emulsion formulations for topical application to human skin in a cosmetic method for controlling sweat and body odor generation can suffer from problems of impaired sensory properties and impaired efficacy (sweat reduction), which are ameliorated or overcome in structured antiperspirant emulsions in which (% s by weight of the | |

Searcher : Shears 571-272-2528

emulsion)

- i) the hydrophilic phase comprises 25 to 55%;
- ii) the hydrophilic phase contains 0 to 15% polyhydric alcohol;
- iii) the emulsifier comprises an alkyl dimethicone copolyol;
- iv) the weight ratio of the hydrophilic phase to the emulsifier is selected in the range of at least 60:1
- v) the structurant comprises an acylated sugar and
- vi) the water-immiscible oil and the structurant are present in a weight ratio of 1.5:1 to 8.5:1.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L25 ANSWER 3 OF 12 USPATFULL on STN

ACCESSION NUMBER: 2002:246380 USPATFULL
 TITLE: Cosmetic compositions
 INVENTOR(S): Franklin, Kevin Ronald, Bebington, UNITED KINGDOM
 Hopkinson, Andrew, Bebington, UNITED KINGDOM
 PATENT ASSIGNEE(S): Unilever Home & Personal Care USA, division of Conopco, Inc., Chicago, IL, United States (U.S. corporation)

| | NUMBER | KIND | DATE |
|---------------------|----------------|------|--------------|
| PATENT INFORMATION: | US 6455056 | B1 | 20020924 |
| APPLICATION INFO.: | US 2000-547804 | | 20000411 (9) |

| | NUMBER | DATE |
|-----------------------|--|----------|
| PRIORITY INFORMATION: | GB 1999-8212 | 19990412 |
| DOCUMENT TYPE: | Utility | |
| FILE SEGMENT: | GRANTED | |
| PRIMARY EXAMINER: | Dees, Jose' G. | |
| ASSISTANT EXAMINER: | George, Konata M | |
| LEGAL REPRESENTATIVE: | Stein, Kevin J. | |
| NUMBER OF CLAIMS: | 31 | |
| EXEMPLARY CLAIM: | 2 | |
| NUMBER OF DRAWINGS: | 0 Drawing Figure(s); 0 Drawing Page(s) | |
| LINE COUNT: | 1683 | |

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A cosmetic composition contains a water-immiscible carrier liquid and a structurant therefor which is effective to gel the composition upon cooling from a temperature at which the structurant is a mobile solution in the carrier liquid. The carrier liquid may serve as a continuous phase in which a solid or liquid disperse phase is suspended. The structurant is a fully or partially esterified saccharide which contains no more than eight monosaccharide residues and has an enthalpy of gelation in the carrier liquid with a magnitude of at least 45 kJ/mole. This minimum enthalpy of gelation facilitates processing at conveniently accessible temperatures and promotes stability.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L25 ANSWER 4 OF 12 USPATFULL on STN

ACCESSION NUMBER: 2002:192295 USPATFULL

TITLE: Methods of preparing disaccharide and trisaccharide C6-C12 fatty acid esters with high alpha content and materials therefrom

INVENTOR(S): Debenham, John Steele, Scotch Plains, NJ, UNITED STATES
Buchanan, Charles Michael, Kingsport, TN, UNITED STATES
Wood, Matthew Davie, Gray, TN, UNITED STATES
Malcolm, Michael Orlando, Kingsport, TN, UNITED STATES
Moore, Mary Kathleen, Jonesborough, TN, UNITED STATES

| | NUMBER | KIND | DATE |
|---------------------|----------------|------|--------------|
| PATENT INFORMATION: | US 2002103369 | A1 | 20020801 |
| | US 6667397 | B2 | 20031223 |
| APPLICATION INFO.: | US 2001-933409 | A1 | 20010820 (9) |

| | NUMBER | DATE |
|--|--|---------------|
| PRIORITY INFORMATION: | US 2000-227990P | 20000825 (60) |
| DOCUMENT TYPE: | Utility | |
| FILE SEGMENT: | APPLICATION | |
| LEGAL REPRESENTATIVE: | JACQUELINE M. HUTTER, NEEDLE & ROSENBERG, P.C., SUITE 1200, 127 PEACHTREE STREET, NE, ATLANTA, GA, 30303 | |
| NUMBER OF CLAIMS: | 25 | |
| EXEMPLARY CLAIM: | 1 | |
| NUMBER OF DRAWINGS: | 6 Drawing Page(s) | |
| LINE COUNT: | 1103 | |
| CAS INDEXING IS AVAILABLE FOR THIS PATENT. | | |
| AB | The present invention provides chemical processes for the preparation of disaccharide and trisaccharide C.sub.6 to C.sub.12 fatty acid esters having a high alpha content. Yet still further, the invention provides materials prepared by the processes disclosed herein. | |

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L25 ANSWER 5 OF 12 USPATFULL on STN

ACCESSION NUMBER: 2002:148249 USPATFULL

TITLE: Cosmetic compositions

INVENTOR(S): Franklin, Kevin Ronald, Wirral, UNITED KINGDOM
Lasbistes, Nicolas, Wirral, UNITED KINGDOM
Webb, Nicholas, Wirral, UNITED KINGDOM
White, Michael Stephen, Wirral, UNITED KINGDOM

PATENT ASSIGNEE(S): Unilever Home & Personal Care USA, Division of Conopco, Inc. (non-U.S. corporation)

| | NUMBER | KIND | DATE |
|---------------------|----------------|------|--------------|
| PATENT INFORMATION: | US 2002076386 | A1 | 20020620 |
| | US 6589515 | B2 | 20030708 |
| APPLICATION INFO.: | US 2001-982150 | A1 | 20011017 (9) |

| | NUMBER | DATE |
|-----------------------|---------------|----------|
| PRIORITY INFORMATION: | GB 2000-25439 | 20001017 |

10/694242

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: UNILEVER, PATENT DEPARTMENT, 45 RIVER ROAD, EDGEWATER,
NJ, 07020
NUMBER OF CLAIMS: 49
EXEMPLARY CLAIM: 1
LINE COUNT: 1690

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A cosmetic composition, preferably an antiperspirant composition, in solid or soft-solid form has a continuous phase which contains a water-immiscible liquid carrier and also contains a structurant which is partially or fully esterified maltose of the formulae: ##STR1##

which is the β -anomer, and optionally ##STR2##

which is the α -anomer;

wherein each Z is independently hydrogen or an acyl group of the formula:

##STR3##

where R denotes a hydrocarbyl group containing from 8 to 31 carbon atoms, with the proviso that not more than half of the Z groups are hydrogen, and the ratio of β -anomer to α -anomer is from 65:35 to 100:0.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L25 ANSWER 6 OF 12 USPATFULL on STN

ACCESSION NUMBER: 2002:148248 USPATFULL

TITLE: Esters

INVENTOR(S): Grainger, Lynda, Wirral, UNITED KINGDOM
Gransden, Kathryn Elizabeth, Wirral, UNITED KINGDOM
Hopkinson, Andrew, Wirral, UNITED KINGDOM
Kowalski, Adam Jan, Wirral, UNITED KINGDOM
Webb, Nicholas, Wirral, UNITED KINGDOM
White, Michael Stephen, Wirral, UNITED KINGDOM
PATENT ASSIGNEE(S): Unilever Home & Personal Care USA, Division of Conopco Inc. (non-U.S. corporation)

| | NUMBER | KIND | DATE |
|---------------------|----------------|------|--------------|
| PATENT INFORMATION: | US 2002076385 | A1 | 20020620 |
| | US 6680048 | B2 | 20040120 |
| APPLICATION INFO.: | US 2001-978954 | A1 | 20011017 (9) |

| | NUMBER | DATE |
|-----------------------|---|----------|
| PRIORITY INFORMATION: | GB 2000-25438 | 20001017 |
| DOCUMENT TYPE: | Utility | |
| FILE SEGMENT: | APPLICATION | |
| LEGAL REPRESENTATIVE: | UNILEVER, PATENT DEPARTMENT, 45 RIVER ROAD, EDGEWATER, NJ, 07020 | |
| NUMBER OF CLAIMS: | 31 | |
| EXEMPLARY CLAIM: | 1 | |

Searcher : Shears 571-272-2528

LINE COUNT: 1273

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Cellobiose esters and particularly α cellobiose octanonanoate has been found able to structure water-immiscible liquids well, and in particular can produce clear structured emulsions. However, such emulsions tend to lose clarity or structural strength during storage. Deviating from α -cellobiose octanonanoate can result in impaired clarity and/or impaired hardness of emulsion sticks.

However, acylated cellobiose which contains acyl substituents of formula --O--CO--R in which R represents an n-octyl residue and the percentage Y of the nonanoate acyl substituent --O--CO--R at the anomeric carbon is at least 60% and the percentage A of α anomer is greater than the anomer and not higher than $A=74.5 + 0.2Y$ when Y is up to 92% and not higher than $A=161-0.74Y$ when Y is greater than 92% offers the production of sticks combining structural stability with product clarity and hardness.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L25 ANSWER 7 OF 12 USPATFULL on STN

ACCESSION NUMBER: 2002:141519 USPATFULL

TITLE: Esters

INVENTOR(S): Franklin, Kevin Ronald, Wirral, Merseyside, UNITED KINGDOM

Hopkinson, Andrew, Wirral, Merseyside, UNITED KINGDOM

Webb, Nicholas, Wirral, Merseyside, UNITED KINGDOM

White, Michael Stephen, Wirral, Merseyside, UNITED KINGDOM

PATENT ASSIGNEE(S): Unilever Home & Personal Care USA, Division of Conopco, Inc. (non-U.S. corporation)

| | NUMBER | KIND | DATE |
|---------------------|----------------|------|--------------|
| PATENT INFORMATION: | US 2002072506 | A1 | 20020613 |
| APPLICATION INFO.: | US 2001-982077 | A1 | 20011017 (9) |

| | NUMBER | DATE |
|-----------------------|--|----------|
| PRIORITY INFORMATION: | GB 2000-25437 | 20001017 |
| DOCUMENT TYPE: | Utility | |
| FILE SEGMENT: | APPLICATION | |
| LEGAL REPRESENTATIVE: | UNILEVER, PATENT DEPARTMENT, 45 RIVER ROAD, EDGEWATER, NJ, 07020 | |
| NUMBER OF CLAIMS: | 51 | |
| EXEMPLARY CLAIM: | 1 | |
| LINE COUNT: | 2086 | |

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Acylated cellobiose compounds (CHME) which satisfy the formula;
##STR1##

wherein X represents an acyl group (R--CO--) or H, Z represents an acyl group (R'--CO--) or H and not more than a minority of X+Z residues represent H,

R represents a saturated or unsaturated, linear or branched chain

hydrocarbon residue of 5 to 31 carbon atoms and

R' represents a residue, different from R, which is:

(i) a saturated or unsaturated, linear or branched chain hydrocarbon residue of 1 to 31 carbon atoms, or (ii) an aromatic hydrocarbon residue, or (iii) a cycloaliphatic hydrocarbon, each optionally substituted.

CHME esters are particularly suited to thickening or structuring a water-immiscible liquid, for example, a phase in a cosmetic formulation, such as antiperspirant or deodorant formulations, eg water in oil emulsions and especially translucent ones.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L25 ANSWER 8 OF 12 USPATFULL on STN

ACCESSION NUMBER: 2001:237462 USPATFULL

TITLE: Cosmetic compositions

INVENTOR(S): Franklin, Kevin Ronald, Bebington, Great Britain
Hopkinson, Andrew, Bebington, Great Britain

| | NUMBER | KIND | DATE |
|---------------------|----------------|------|--------------|
| PATENT INFORMATION: | US 2001055574 | A1 | 20011227 |
| | US 6426060 | B2 | 20020730 |
| APPLICATION INFO.: | US 2000-548309 | A1 | 20000412 (9) |

| | NUMBER | DATE |
|-----------------------|--|----------|
| PRIORITY INFORMATION: | GB 1999-8212 | 19990412 |
| DOCUMENT TYPE: | Utility | |
| FILE SEGMENT: | APPLICATION | |
| LEGAL REPRESENTATIVE: | UNILEVER, PATENT DEPARTMENT, 45 RIVER ROAD, EDGEWATER, NJ, 07020 | |
| NUMBER OF CLAIMS: | 25 | |
| EXEMPLARY CLAIM: | 1 | |
| LINE COUNT: | 1777 | |

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A cosmetic composition is a structured emulsion of a continuous phase containing water-immiscible liquid carrier plus a structurant, and a disperse phase which is a solution of antiperspirant active in a more polar, probably aqueous, solvent. The structurant is a material which forms a network of fibers in the continuous phase, thereby gelling it. The structurant has an enthalpy of gelation in the carrier liquid or a test liquid with a magnitude of at least 30 kJ/mole. This minimum enthalpy of gelation facilitates processing at conveniently accessible temperatures and promotes stability.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L25 ANSWER 9 OF 12 USPATFULL on STN

ACCESSION NUMBER: 2001:188221 USPATFULL

TITLE: Cosmetic compositions

INVENTOR(S): Franklin, Kevin Ronald, Bebington, Great Britain
Kowalski, Adam Jan, Bebington, Great Britain

10/694242

PATENT ASSIGNEE(S): Parrott, David Terence, Chicago, IL, United States
Rowe, Kathryn Elizabeth, Bebington, Great Britain
White, Michael Stephen, Bebington, Great Britain
Unilever Home & Personal Care USA, Division of Conopco, Inc. (non-U.S. corporation)

| | NUMBER | KIND | DATE |
|-----------------------|---|------|--------------|
| PATENT INFORMATION: | US 2001033851 | A1 | 20011025 |
| | US 6458344 | B2 | 20021001 |
| APPLICATION INFO.: | US 2001-826494 | A1 | 20010404 (9) |
| RELATED APPLN. INFO.: | Division of Ser. No. US 2000-548310, filed on 12 Apr 2000, GRANTED, Pat. No. US 6248312 | | |

| | NUMBER | DATE |
|-----------------------|--|----------|
| PRIORITY INFORMATION: | GB 1999-8202 | 19990412 |
| DOCUMENT TYPE: | Utility | |
| FILE SEGMENT: | APPLICATION | |
| LEGAL REPRESENTATIVE: | UNILEVER, PATENT DEPARTMENT, 45 RIVER ROAD, EDGEWATER, NJ, 07020 | |
| NUMBER OF CLAIMS: | 33 | |
| EXEMPLARY CLAIM: | 1 | |
| LINE COUNT: | 1939 | |

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A cosmetic composition preferably an antiperspirant composition, in solid or soft-solid form has a continuous phase which contains a water-immiscible liquid carrier and also contains a structurant which is partially or fully esterified cellobiose of the formula ##STR1##

wherein each Z is independently hydrogen or an acyl group of the formula ##STR2##

where R denotes a hydrocarbonyl group containing from 4 to 22 carbon atoms. Not more than half of the Z groups are hydrogen.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L25 ANSWER 10 OF 12 USPATFULL on STN

ACCESSION NUMBER: 2001:93081 USPATFULL

TITLE: Cosmetic compositions

INVENTOR(S): Franklin, Kevin Ronald, Bebington, United Kingdom
Kowalski, Adam Jan, Bebington, United Kingdom
Parrott, David Terence, Chicago, IL, United States
Rowe, Kathryn Elizabeth, Bebington, United Kingdom
White, Michael Stephen, Bebington, United Kingdom

PATENT ASSIGNEE(S): Unilever Home & Personal Care USA, division of Conopco, Inc., Chicago, IL, United States (U.S. corporation)

| | NUMBER | KIND | DATE |
|---------------------|----------------|------|--------------|
| PATENT INFORMATION: | US 6248312 | B1 | 20010619 |
| APPLICATION INFO.: | US 2000-548310 | | 20000412 (9) |

| NUMBER | DATE |
|--------|------|
|--------|------|

Searcher : Shears 571-272-2528

PRIORITY INFORMATION: GB 1999-8202 19990412
 DOCUMENT TYPE: Utility
 FILE SEGMENT: GRANTED
 PRIMARY EXAMINER: Dodson, Shelley A.
 LEGAL REPRESENTATIVE: Boxer, Matthew
 NUMBER OF CLAIMS: 34
 EXEMPLARY CLAIM: 1
 LINE COUNT: 1857

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A cosmetic composition preferably an antiperspirant composition, in solid or soft-solid form has a continuous phase which contains a water-immiscible liquid carrier and also contains a structurant which is partially or fully esterified cellobiose of the formula ##STR1##

wherein each Z is independently hydrogen or an acyl group of the formula ##STR2##

where R denotes a hydrocarbyl group containing from 4 to 22 carbon atoms. Not more than half of the Z groups are hydrogen.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L25 ANSWER 11 OF 12 USPATFULL on STN

ACCESSION NUMBER: 2001:82302 USPATFULL
 TITLE: Antiperspirant compositions
 INVENTOR(S): Esser, Isabelle Claire, Bebington, United Kingdom
 Franklin, Kevin Ronald, Bebington, United Kingdom
 Grainger, Lynda, Bebington, United Kingdom
 Kowalski, Adam Jan, Bebington, United Kingdom
 Rowe, Kathryn Elizabeth, Bebington, United Kingdom
 PATENT ASSIGNEE(S): Unilever Home & Personal Care USA, division of Conopco, Inc., Chicago, IL, United States (U.S. corporation)

| | NUMBER | KIND | DATE |
|---------------------|----------------|------|--------------|
| PATENT INFORMATION: | US 6241976 | B1 | 20010605 |
| APPLICATION INFO.: | US 2000-547445 | | 20000412 (9) |

| | NUMBER | DATE |
|-----------------------|--------------------|----------|
| PRIORITY INFORMATION: | GB 1999-8223 | 19990412 |
| DOCUMENT TYPE: | Utility | |
| FILE SEGMENT: | Granted | |
| PRIMARY EXAMINER: | Dodson, Shelley A. | |
| LEGAL REPRESENTATIVE: | Boxer, Matthew | |
| NUMBER OF CLAIMS: | 24 | |
| EXEMPLARY CLAIM: | 1 | |
| LINE COUNT: | 1728 | |

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB An antiperspirant composition is a structured emulsion of a continuous phase containing water-immiscible liquid carrier plus a structurant, and a disperse phase which is a solution of antiperspirant active in water or a mixture of water and water-soluble solvent. The structurant is a fully or partially esterified saccharide. The compositions give low visible residue when applied to skin or to clothing.

10/694242

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L25 ANSWER 12 OF 12 USPATFULL on STN

ACCESSION NUMBER: 90:56117 USPATFULL

TITLE: Process for producing low calorie foods from alkyl glycoside fatty acid polyesters

INVENTOR(S): Winter, Daryl B., Seattle, WA, United States

Meyer, Richard S., Tacoma, WA, United States

Root, Jeffrey M., Tacoma, WA, United States

Campbell, Michael L., Kent, WA, United States

PATENT ASSIGNEE(S): Curtice-Burns, Inc., Rochester, NY, United States (U.S. corporation)

| | NUMBER | KIND | DATE |
|-----------------------|---|------|--------------|
| PATENT INFORMATION: | US 4942054 | | 19900717 |
| APPLICATION INFO.: | US 1989-347264 | | 19890503 (7) |
| DISCLAIMER DATE: | 20060620 | | |
| RELATED APPLN. INFO.: | Continuation-in-part of Ser. No. US 1987-122188, filed on 18 Nov 1987, now patented, Pat. No. US 4840815 which is a continuation-in-part of Ser. No. US 1987-49625, filed on 13 May 1987, now abandoned | | |
| DOCUMENT TYPE: | Utility | | |
| FILE SEGMENT: | Granted | | |
| PRIMARY EXAMINER: | Czaja, Donald E. | | |
| ASSISTANT EXAMINER: | Federman, Euan | | |
| LEGAL REPRESENTATIVE: | Christensen, O'Connor, Johnson & Kindness | | |
| NUMBER OF CLAIMS: | 30 | | |
| EXEMPLARY CLAIM: | 1 | | |
| LINE COUNT: | 960 | | |

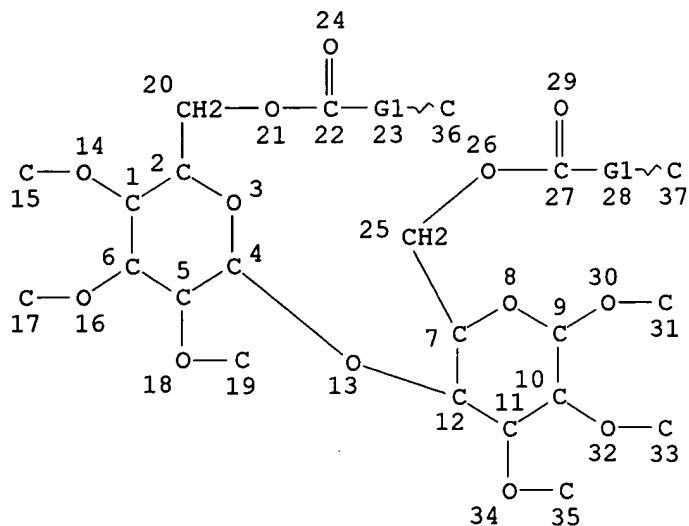
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Low calorie foods are produced by substituting for the triglyceride fats normally found in foods or food products, a fat substitute comprising an alkyl glycoside fatty acid polyester, the polyester having at least 4 fatty acid ester groups, wherein each fatty acid has from 4 to 24 carbon atoms, and wherein the alkyl glycoside moiety comprises a saccharide portion and an alkyl portion, the alkyl portion having from 1 to 24 carbon atoms.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

(FILE 'MARPAT' ENTERED AT 15:37:20 ON 01 SEP 2004)

L20 STR



REP G1=(5-5) C
 NODE ATTRIBUTES:
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 37

STEREO ATTRIBUTES: NONE

ATTRIBUTES SPECIFIED AT SEARCH-TIME:
 ECLEVEL IS LIM ON ALL NODES
 ALL RING(S) ARE ISOLATED

L27 8 SEA FILE=MARPAT SSS FUL L20 (MODIFIED ATTRIBUTES)
 L28 2 SEA FILE=MARPAT ABB=ON PLU=ON L27/COMPLETE

*Limit to only answers/
 complete iterations*

L28 ANSWER 1 OF 2 MARPAT COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 136:330337 MARPAT

TITLE: Cosmetic compositions containing cellobiose octanonanoate

INVENTOR(S): Grainger, Lynda; Gransden, Kathryn Elizabeth;
 Hopkinson, Andrew; Kowalski, Adam Jan; Webb, Nicholas;
 White, Michael Stephen

PATENT ASSIGNEE(S): Unilever PLC, UK; Unilever NV

SOURCE: Eur. Pat. Appl., 20 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------|------|------|-----------------|-------|
| ----- | ---- | ---- | ----- | ----- |

Searcher : Shears 571-272-2528

10/694242

EP 1199311 A1 20020424 EP 2001-307826 20010914
EP 1199311 B1 20040331
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
AT 263178 E 20040415 AT 2001-307826 20010914
US 2002076385 A1 20020620 US 2001-978954 20011017
US 6680048 B2 20040120

PRIORITY APPLN. INFO.:

GB 2000-25438 20001017

AB Cellobiose esters and particularly α -cellobiose octanonoate (I) has been found able to structure water-immiscible liqs. well, and in particular can produce clear structured emulsions. However, such emulsions tend to lose clarity or structural strength during storage. Deviating from I can result in impaired clarity and/or impaired hardness of emulsion sticks. However, acylated cellobiose which contains acyl substituents of formula -O-CO-R in which R represents an n-octyl residue and the percentage Y of the nonanoate acyl substituent -O-CO-R at the anomeric carbon is at least 60% and the percentage A of α anomer is greater than the β anomer and not higher than $A = 74.5 + 0.2Y$ when Y is up to 92% and not higher than $A = 161 - 0.74Y$ when Y is greater than 92% offers the production of sticks combining structural stability with product clarity and hardness. A clear emulsion stick contained cyclomethicone DC245 17.6, polydecene 26.4, acylated cellobiose (A = 95.1%, and Y = 98.1%) 5.0, cetyl dimethicone copolyol 1.0, zirconal-50 40.0, and glycerol 10.0%.

IC ICM C07H003-04

ICS C07H013-06; A61K007-32; A61K007-34; A61K007-38

CC 62-6 (Essential Oils and Cosmetics)

ST cosmetic stick cellobiose octanonoate aluminum chlorohydrate

IT Antiperspirants

Deodorants

Gelation agents

Sunscreens

Suntanning agents

(cosmetic compns. containing cellobiose octanonoate)

IT Polysiloxanes, biological studies

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(cosmetic compns. containing cellobiose octanonoate)

IT Cosmetics

(creams; cosmetic compns. containing cellobiose octanonoate)

IT Cosmetics

(sticks; cosmetic compns. containing cellobiose octanonoate)

IT 1327-41-9, Aluminum chlorohydrate 1344-20-3, Aluminum zirconium chlorohydrate 134910-86-4, Zirconal-50 172585-66-9, α -Cellobiose octanonoate

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(cosmetic compns. containing cellobiose octanonoate)

REFERENCE COUNT:

3

THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L28 ANSWER 2 OF 2 MARPAT COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 133:313385 MARPAT

TITLE: Cosmetic compositions containing cellobiose ester structurants

INVENTOR(S): Franklin, Kevin Ronald; Kowalski, Adam Jan; Parrot, David Terence; Rowe, Kathryn Elizabeth; White, Michael Stephen

Searcher : Shears 571-272-2528

PATENT ASSIGNEE(S): Unilever PLC, UK; Unilever N.V.; Hindustan Lever Limited
 SOURCE: PCT Int. Appl., 95 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|----------|
| WO 2000061079 | A2 | 20001019 | WO 2000-GB1228 | 20000331 |
| W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| BR 2000009698 | A | 20020102 | BR 2000-9698 | 20000331 |
| EP 1171086 | A2 | 20020116 | EP 2000-918996 | 20000331 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| JP 2002541171 | T2 | 20021203 | JP 2000-610412 | 20000331 |
| AU 769884 | B2 | 20040205 | AU 2000-39760 | 20000331 |
| US 6248312 | B1 | 20010619 | US 2000-548310 | 20000412 |
| US 2001033851 | A1 | 20011025 | US 2001-826494 | 20010404 |
| US 6458344 | B2 | 20021001 | | |
| ZA 2001008000 | A | 20020930 | ZA 2001-8000 | 20010928 |
| PRIORITY APPLN. INFO.: | | | GB 1999-8202 | 19990412 |
| | | | WO 2000-GB1228 | 20000331 |
| | | | US 2000-548310 | 20000412 |

AB A cosmetic composition preferably an antiperspirant composition, in solid or soft-solid form has a continuous phase which contains a water-immiscible liquid carrier and also contains a structurant which is partially or fully esterified cellobiose. A number of cellobiose esters were prepared including

the nonanoate and decanoate and a number of cosmetic formulations given including antiperspirants.

IC ICM A61K007-00

CC 62-4 (Essential Oils and Cosmetics)

Section cross-reference(s): 33

ST cosmetic cellobiose ester structurant

IT Antiperspirants

(cosmetic compns. containing cellobiose ester structurants)

IT Alcohols, biological studies

Glycols, biological studies

Polysiloxanes, biological studies

RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(cosmetic compns. containing cellobiose ester structurants)

IT Cyclosiloxanes

RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(di-Me; cosmetic compns. containing cellobiose ester structurants)

IT Cosmetics
(gels; cosmetic compns. containing cellobiose ester structurants)

IT Alcohols, biological studies
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(polyhydric; cosmetic compns. containing cellobiose ester structurants)

IT Carbohydrates, biological studies
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(sugar esters; cosmetic compns. containing cellobiose ester structurants)

IT 240418-70-6
RL: BUU (Biological use, unclassified); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)
(SF 1555; cosmetic compns. containing cellobiose ester structurants)

IT 56-81-5, 1,2,3-Propanetriol, biological studies 57-55-6,
1,2-Propanediol, biological studies 134910-86-4, AZAG 7167
173762-83-9, Zirkonal 50
RL: BUU (Biological use, unclassified); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)
(cosmetic compns. containing cellobiose ester structurants)

IT 172585-65-8P, α -D-Glucopyranose, 4-O-[2,3,4,6-tetrakis-O-(1-oxooctyl)- β -D-glucopyranosyl]-, tetraoctanoate 172585-66-9P,
 α -D-Glucopyranose, 4-O-[2,3,4,6-tetrakis-O-(1-oxononyl)- β -D-glucopyranosyl]-, tetranonanoate 172585-67-0P 172585-68-1P,
 α -Cellobiose octaundecanoate 301684-31-1P 301684-34-4P
301807-45-4P 301807-46-5P
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(cosmetic compns. containing cellobiose ester structurants)

IT 57-11-4, Octadecanoic acid, reactions 111-14-8, Heptanoic acid
112-05-0, Nonanoic acid 112-37-8, Undecanoic acid 124-07-2, Octanoic
acid, reactions 142-62-1, Hexanoic acid, reactions 143-07-7,
Dodecanoic acid, reactions 334-48-5, Decanoic acid 528-50-7,
Cellobiose
RL: RCT (Reactant); RACT (Reactant or reagent)
(cosmetic compns. containing cellobiose ester structurants)

FILE 'MEDLINE, BIOSIS, EMBASE' ENTERED AT 15:47:01 ON 01 SEP 2004

L30 0 S L23
FILE 'REGISTRY' ENTERED AT 15:46:24 ON 01 SEP 2004
E CELLOBIOSE/CN 5

L29 1 S E3

L29 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2004 ACS on STN

RN 528-50-7 REGISTRY

CN D-Glucose, 4-O- β -D-glucopyranosyl- (6CI, 9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN **Cellobiose (8CI)**

OTHER NAMES:

CN 4-(β -D-Glucosido)-D-glucose

CN 4-Beta-D-Glucopyranosyl-D-glucopyranose

CN 4-O- β -D-Glucopyranosyl-D-glucose

CN Cellose

CN D-(+)-Cellobiose

CN D-Cellobiose

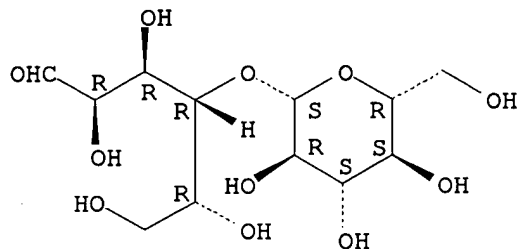
CN D-Glucosyl- β -(1 \rightarrow 4)-D-glucose

- Key terms

10/694242

AR 16462-44-5
FS STEREOSEARCH
DR 23315-16-4
MF C12 H22 O11
CI COM
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CAOLD, CAPLUS, CASREACT, CEN, CHEMCATS, CHEMLIST, CIN, CSCHEM, DDFU, DETHERM*, DRUGU, EMBASE, IFICDB, IFIPAT, IFIUDB, IPA, MRCK*, MSDS-OHS, PIRA, PROMT, TOXCENTER, USPAT2, USPATFULL
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)
DT.CA Caplus document type: Conference; Dissertation; Journal; Patent; Report
RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)
RLD.P Roles for non-specific derivatives from patents: ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); PROC (Process); RACT (Reactant or reagent); USES (Uses)
RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)
RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

4241 REFERENCES IN FILE CA (1907 TO DATE)
171 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
4251 REFERENCES IN FILE CAPLUS (1907 TO DATE)
57 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

(FILE 'REGISTRY' ENTERED AT 15:49:04 ON 01 SEP 2004)
E FATTY ACID ESTER/CN 5

FILE 'CAPLUS' ENTERED AT 15:49:07 ON 01 SEP 2004

L29 1 SEA FILE=REGISTRY ABB=ON PLU=ON CELLOBIOSE/CN
L31 7825 SEA FILE=CAPLUS ABB=ON PLU=ON L29 OR CELLOBIOSE

Searcher : Shears 571-272-2528

L32 1136 SEA FILE=CAPLUS ABB=ON PLU=ON L31 AND (TRISACCHARIDE OR
DISACCHARIDE OR (TRI OR DI) (W) SACCHARIDE)
L33 9 SEA FILE=CAPLUS ABB=ON PLU=ON L32 AND FATTY ACID(S) ESTER
L34 8 L33 NOT L22

L34 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 25 Jun 2004

ACCESSION NUMBER: 2004:515374 CAPLUS

DOCUMENT NUMBER: 141:73686

TITLE: Chemical synthesis comprising a heat treatment by
intermittent dielectric heating combined with a
recirculation system

INVENTOR(S): Charlier De Chily, Pierre; Raynard, Mikaele

PATENT ASSIGNEE(S): Aldivia, Fr.

SOURCE: Fr. Demande, 48 pp.

CODEN: FRXXBL

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| FR 2849343 | A1 | 20040625 | FR 2002-16743 | 20021223 |
| PRIORITY APPLN. INFO.: | | | FR 2002-16743 | 20021223 |

AB The present invention relates to the design of a process with intermittent dielec. heating combined with a system of recirculation. This process consists in subjecting the reagents to electromagnetic waves selected in the frequencies ranging 300GHz to 3MHz in an intermittent way using a system of recirculation. This permits treating oils absorbing little. There is great saving in capital investment. The process makes it possible to work on various scales, as well on a scale laboratory, semi-industrial or industrial, without losing the advantages of the continuous dielec. heating.

IT **528-50-7, Cellobiose**
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process)
(chemical synthesis comprising heat treatment by intermittent dielec. heating combined with recirculation system)

L34 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 16 Apr 2004

ACCESSION NUMBER: 2004:309871 CAPLUS

DOCUMENT NUMBER: 140:326643

TITLE: Use of at least a linoleic acid sugar amide or ester
for producing 13-hydroxyoctadecadienoic acid in skin
epidermis

INVENTOR(S): Michelet, Jean Francois; Bernard, Bruno; Dalko, Maria

PATENT ASSIGNEE(S): L'Oreal, Fr.

SOURCE: Fr. Demande, 38 pp.

CODEN: FRXXBL

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

10/694242

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------|------|----------|-----------------|----------|
| FR 2845596 | A1 | 20040416 | FR 2002-12828 | 20021015 |
| WO 2004034958 | A2 | 20040429 | WO 2003-IB4517 | 20031014 |
| WO 2004034958 | A3 | 20040715 | | |

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: FR 2002-12827 A 20021015
FR 2002-12828 A 20021015

OTHER SOURCE(S): MARPAT 140:326643

AB The use of at least a mono - or poly-ester of linoleic acid sugar amide for the preparation of a cosmetic or pharmaceutical composition intended to treat

and/or prevent the skin dryness, and in particular to generate 13-hydroxyoctadecadienoic acid is disclosed. Glucose ester of vitamin F (I) was prepared by the reaction of vitamin F chloride and D-glucose. A lotion contained salicylic acid 1, I 1, propylene glycol 5, alc. 87, and water q.s. 100%.

IT 528-50-7D, Cellobiose, esters

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(use of at least **fatty acid** sugar amide or **ester** for preventing and/or treating dry oligoseborrheic skin)

REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L34 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 16 Apr 2004

ACCESSION NUMBER: 2004:309870 CAPLUS

DOCUMENT NUMBER: 140:326642

TITLE: Use of at least a **fatty acid** sugar amide or **ester** for preventing and/or treating dry oligoseborrheic skin

INVENTOR(S): Rubinstenn, Gilles

PATENT ASSIGNEE(S): L'Oreal, Fr.

SOURCE: Fr. Demande, 34 pp.

CODEN: FRXXBL

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------|------|----------|-----------------|----------|
| FR 2845595 | A1 | 20040416 | FR 2002-12827 | 20021015 |
| WO 2004034958 | A2 | 20040429 | WO 2003-IB4517 | 20031014 |
| WO 2004034958 | A3 | 20040715 | | |

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,

Searcher : Shears 571-272-2528

CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
 GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
 LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM,
 PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN,
 TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY,
 KG, KZ, MD, RU
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,
 CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC,
 NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
 GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: FR 2002-12827 A 20021015
 FR 2002-12828 A 20021015

AB The use of at least a sugar amide, mono- or poly- **esters** of **fatty acid** for the preparation of a cosmetic or pharmaceutical composition intended to prevent and/or treat the cutaneous dryness, and in particular the oligoseborrhic is disclosed. Glucose ester of vitamin F (I) was prepared by the reaction of vitamin F chloride and D-glucose. A lotion contained salicylic acid 1, I 1, propylene glycol 5, alc. 87, and water q.s. 100%.

IT 528-50-7D, Cellobiose, esters

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(use of at least **fatty acid** sugar amide or

ester for preventing and/or treating dry oligoseborrhic skin)

REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L34 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 02 May 2003

ACCESSION NUMBER: 2003:334412 CAPLUS

DOCUMENT NUMBER: 138:336920

TITLE: Protein-based gloss coatings for foods and for protecting nuts from rancidity

INVENTOR(S): Krochta, John M.; Lee, Soo-yeun; Trezza, Thomas A.; Dangaran, Kirsten L.

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 14 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| US 2003082282 | A1 | 20030501 | US 2001-879796 | 20010611 |
| PRIORITY APPLN. INFO.: | | | US 2001-879796 | 20010611 |

AB Edible gloss coatings for foods comprise whey protein isolate or soy protein isolate and a **disaccharide** or monosaccharide plasticizer. The gloss coatings may be applied to confections, such as chocolates, hard-panned confections, soft-panned confections, yogurt-coated confections, starch-molded confections, and compressed sugar tablets. The development of rancidity in nuts is inhibited by mildly abrading the nut while contacting it with an edible film-forming agent. Thus, a coating may include denatured whey protein isolate, native whey protein isolate, sucrose, cocoa butter, and water in ratios of 1:1:2:1:9.

IT 528-50-7, Cellobiose

RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
(protein-based gloss coatings for foods and for protecting nuts from rancidity)

L34 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 23 Jan 1998

ACCESSION NUMBER: 1998:38402 CAPLUS

DOCUMENT NUMBER: 128:127145

TITLE: Enzyme catalyzed method for producing monocarboxylic acid esters of mono-, di-, or oligosaccharides

INVENTOR(S): Schneider, Manfred; Haase, Bernhard; Machmueller, Guido

PATENT ASSIGNEE(S): Huels A.-G., Germany

SOURCE: Ger. Offen., 4 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|------------------|----------|
| DE 19626943 | A1 | 19980108 | DE 1996-19626943 | 19960704 |
| PRIORITY APPLN. INFO.: | | | DE 1996-19626943 | 19960704 |

AB An enzymic method for preparation of monocarboxylic acid esters of mono-, di-, or oligosaccharides is disclosed. Free **fatty acids** as well as their short-chain acyl **esters**, triglycerides, anhydrides, activated **esters**, and rape oil alkyl **esters** are incubated with lipase in the presence of mono-, di- or oligosaccharides, starch, cellulose, methylcellulose hydrolyzates, cyclodextrin, sugar alcs., and/or glycosides, especially glycoside antibiotics to prepare the monoesters. Glucose, lauric acid Me ester, and Novozyme SP 435 in THF was incubated 24 h at 60°. MeOH produced by the reaction was captured with mol. sieves. An 85% yield of 6-O-lauroylglucose was obtained. Galactose and mannose produced similar results.

IT **528-50-7, Cellobiose**
RL: RCT (Reactant); RACT (Reactant or reagent)
(enzyme catalyzed method for producing monocarboxylic acid esters of mono-, di-, or oligosaccharides)

L34 ANSWER 6 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 28 Feb 1997

ACCESSION NUMBER: 1997:134388 CAPLUS

DOCUMENT NUMBER: 127:78392

TITLE: Carbon source utilization and γ -linolenic acid production by Mucoralean fungi

AUTHOR(S): Botha, A.; Strauss, T.; Kock, J. L. F.; Pohl, C. H.; Coetzee, D. J.

CORPORATE SOURCE: Department Microbiologie Biochemistry, University Orange Free State, Bloemfontein, 9300, S. Afr.

SOURCE: Systematic and Applied Microbiology (1997), 20(1), 165-170

CODEN: SAMIDF; ISSN: 0723-2020

PUBLISHER: Fischer
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The influence of different C sources on growth and consequent γ -linolenic acid [18:3(ω 6)] content of the lipids produced by 4 mucoralean fungal strains (*Mortierella alpina*, *Mucor circinelloides*, *Mucor flavus*, and *Thammostylum piriforme*) was investigated. The strains were cultivated in synthetic media, devoid of long-chain fatty acids, containing 2.00g/L C. The biomass was periodically harvested, freeze dried and the total lipids were extracted. The long-chain **fatty acids** in the lipids were analyzed as Me **esters** by gas chromatog. Generally the highest percentages 18:3(ω 6), relative to other long-chain fatty acids, were obtained on **disaccharide** and polysaccharides as C sources, compared to other carbohydrates which include pentoses and **trisaccharides**. Higher percentages 18:3(ω 6) were obtained on alcs. as C sources in the case of the representatives of *Mucor* and *Mortierella*, and on organic acids as C sources for the representative of *Thammostylum*. The representatives of *circinelloides* and *Mucor flavus* resp. utilized 25 and 23 of the 38 C sources. The highest percentages 18:3(ω 6) obtained with the representatives of *Mucor circinelloides* and *Mucor flavus* were 27.17 and 36.40%, resp. The highest percentages 18:3(ω 6) obtained with the representatives of *Mortierella alpina* and *T. piriforme* were only 5.6 and 12.84%, resp. These 2 strains could resp. utilize only 7 and 17 of the C sources.

IT 528-50-7, Cellobiose

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(carbon utilization and γ -linolenic acid production by Mucoralean fungi)

L34 ANSWER 7 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 22 Apr 2001

ACCESSION NUMBER: 1965:36253 CAPLUS

DOCUMENT NUMBER: 62:36253

ORIGINAL REFERENCE NO.: 62:6350f-g

TITLE: Enhancing the absorption of orally administered medicinals with **disaccharide fatty acid esters**

INVENTOR(S): Duell, Helen E.

PATENT ASSIGNEE(S): Smith Kline & French Laboratories

SOURCE: 3 pp.

DOCUMENT TYPE: Patent

LANGUAGE: Unavailable

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------|------|---|-----------------|----------|
| ----- | ---- | ----- | ----- | ----- |
| US 3160565 | | 19641208 | US | 19620809 |
| AB | | The absorption of medicinals (Fe salts, cyanocobalamin, hydroxycobalamin, nitrocobalamin, chlorocobalamin, dicyanocobalamin, thiocyanocobalamin, sulfatocobalamin, sulfitocobalamin, tetracycline, chlortetracycline, oxytetracycline, streptomycin, dihydrostreptomycin, and kanamycin), given orally, is enhanced when given concurrently with an ester of a disaccharide (sucrose, maltose, lactose, melibiose, trehalose, | | |

cellobiose, or gentiobiose) with a C9-22 **fatty acid**. Thus, a medicinal is prepared containing 165 γ vitamin B12, 10 g. sucrose dipalmitate, 10 g. streptomycin sulfate, and H2O to 100 cc. The preparation may be used in veterinary practice per se or as an additive to feed or drinking water.

L34 ANSWER 8 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 22 Apr 2001

ACCESSION NUMBER: 1960:122028 CAPLUS

DOCUMENT NUMBER: 54:122028

ORIGINAL REFERENCE NO.: 54:23311i,23312a-b

TITLE: Lubricating greases

INVENTOR(S): Morway, Arnold J.; Waddey, Walter E.

PATENT ASSIGNEE(S): Esso Research and Engineering Co.

DOCUMENT TYPE: Patent

LANGUAGE: Unavailable

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------|------|----------|-----------------|------|
| US 2944024 | | 19600705 | US | |
| DE 1091687 | | | DE | |
| GB 840368 | | | GB | |

AB Lubricating oils are thickened to grease consistency by 5-30 weight % of an **ester** of 1 mole **disaccharide** and 1-3 moles of a C12-C32 **fatty acid**, and 5-40 weight % of an alkaline earth metal salt of a C2-C6 **fatty acid**. The preferred esters are sucrose mono- and distearate, but compds. of maltose, lactose, and **cellobiose** may also be used. Thus, 10 parts by weight of sucrose distearate was dispersed in 55.6 parts of lubricating oil, having a viscosity of 55 Saybolt Universal sec. at 210°F., by heating and stirring to 300°F. After this mixture had cooled to 100-20°F., 13.4 parts of Ca(OH)2 was added, and the mixture was dispersed to a smooth slurry. Then while stirring, 20 parts of glacial AcOH was added. A grease formed and the temperature rose to 180°F. Stirring was continued until the temperature began to drop, when heating was resumed to bring the mass to 320°F. after which it was allowed to cool while stirring. At 200°F. 1 part of Ph-1-naphthylamine was added, and the product was allowed to cool to room temperature. A smooth lubricating grease resulted having a dropping point of 500 + °F., a worked penetration of 275, and a life of over 1300 hrs. in a bearing operating at 250°F. and 10,000 r.p.m. The grease was insol. in H2O and carried 15 wts. on an Almen test.

(FILE 'MEDLINE, BIOSIS, EMBASE, WPIDS, CONFSCI, SCISEARCH, JICST-EPLUS, JAPIO' ENTERED AT 15:51:51 ON 01 SEP 2004)

L35

11 S L33

L36

9 DUP REM L35 (2 DUPLICATES REMOVED)

L36 ANSWER 1 OF 9 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN

ACCESSION NUMBER: 2002-599703 [64] WPIDS

DOC. NO. CPI: C2002-169524

TITLE: Preparation of **fatty acid ester** of carbohydrate, useful for food, cosmetic

10/694242

or pharmaceutical industries, comprises dehydrating
carbohydrate **fatty acid** salt emulsion
to form solid phase and transesterifying solid phase with
fatty acid ester.

DERWENT CLASS: B07 D13 D21 E13
INVENTOR(S): JO, I; JO, I H
PATENT ASSIGNEE(S): (JOII-I) JO I; (JOIH-I) JO I H
COUNTRY COUNT: 101
PATENT INFORMATION:

| PATENT NO | KIND | DATE | WEEK | LA | PG |
|---------------|---|----------|-----------|----|----|
| WO 2002057282 | A1 | 20020725 | (200264)* | EN | 29 |
| RW: | AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ | | | | |
| | NL OA PT SD SE SL SZ TR TZ UG ZM ZW | | | | |
| W: | AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK | | | | |
| | DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KZ | | | | |
| | LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO | | | | |
| | RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW | | | | |
| KR 2002062186 | A | 20020725 | (200308) | | |
| EP 1355914 | A1 | 20031029 | (200379) | EN | |
| R: | AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT | | | | |
| | RO SE SI TR | | | | |
| US 2004063928 | A1 | 20040401 | (200425) | | |
| AU 2002225495 | A1 | 20020730 | (200427) | | |
| CN 1484648 | A | 20040324 | (200437) | | |
| JP 2004523526 | W | 20040805 | (200451) | | 45 |

APPLICATION DETAILS:

| PATENT NO | KIND | APPLICATION | DATE |
|---------------|------|----------------|----------|
| WO 2002057282 | A1 | WO 2002-KR76 | 20020117 |
| KR 2002062186 | A | KR 2002-2669 | 20020117 |
| EP 1355914 | A1 | EP 2002-715907 | 20020117 |
| | | WO 2002-KR76 | 20020117 |
| US 2004063928 | A1 | WO 2002-KR76 | 20020117 |
| | | US 2003-466444 | 20030716 |
| AU 2002225495 | A1 | AU 2002-225495 | 20020117 |
| CN 1484648 | A | CN 2002-803642 | 20020117 |
| JP 2004523526 | W | JP 2002-557959 | 20020117 |
| | | WO 2002-KR76 | 20020117 |

FILING DETAILS:

| PATENT NO | KIND | PATENT NO |
|---------------|-------------|---------------|
| EP 1355914 | A1 Based on | WO 2002057282 |
| AU 2002225495 | A1 Based on | WO 2002057282 |
| JP 2004523526 | W Based on | WO 2002057282 |

PRIORITY APPLN. INFO: KR 2001-2787 20010118
AN 2002-599703 [64] WPIDS
AB WO 200257282 A UPAB: 20030204
NOVELTY - A method (M1) of preparing a **fatty acid ester** of a carbohydrate (I), comprises:

Searcher : Shears 571-272-2528

- (A) emulsifying a solution of the carbohydrate or its derivative in water with a fatty acid salt to form an emulsion;
- (B) dehydrating the emulsion to leave a solid phase;
- (C) transesterifying the solid phase with the **fatty acid ester** to produce **fatty acid ester** of carbohydrate; and
- (D) purifying the **fatty acid ester** of the carbohydrate.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for a method (M2) of purifying **fatty acid ester** of carbohydrates or their derivatives from the transesterification reaction mixture, comprising:

- (a) mixing the reaction mixture with water and an organic solvent lower in boiling point than water, to form an emulsion;
- (b) adding an aqueous solution of a neutral salt to the emulsion to form an organic layer containing **fatty acid esters** of carbohydrates, salts of **fatty acids**, and unreacted **fatty acid esters**, and aqueous layer containing unreacted carbohydrates or their derivatives;
- (c) precipitating the fatty acid salts in the organic layer by advantage of low solubility of the salts in a low-boiling point organic solvent, and then separated the precipitate from the liquid;
- (d) separating the liquid into an aqueous phase and an organic phase by addition of water.

The aqueous phase contains **fatty acid esters** of carbohydrates with high hydrophilic lipophilic balance (HLB) value. The organic phase contains **fatty acid esters** of carbohydrates with low HLB value, and unreacted **fatty acid esters**. The **fatty acid esters** of carbohydrates with high and low HLB values are isolated from the aqueous and the organic phase, respectively.

USE - (M1) is used for the preparation of **fatty acid ester** of carbohydrate such as sucrose stearate for food, pharmaceutical or cosmetics industries.

ADVANTAGE - The **fatty ester** of carbohydrate is prepared economically with high yield. The transesterification is performed at lower temperature within a short period of time by using a longer carbon chain of **fatty acid** such as carbon chain length of 16 or more. Useful materials obtained from each purification step, including **fatty acid salt**, unreacted **fatty acid esters**, organic solvents are reused in subsequent preparation and purification process of **fatty acid esters** of carbohydrate. The purification process are applied isolation of **esters** of interest produced by **ester** interchange.
Dwg.0/0

L36 ANSWER 2 OF 9 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
 ACCESSION NUMBER: 2002-315532 [35] WPIDS
 DOC. NO. CPI: C2002-091883
 TITLE: Preparation of a di or **trisaccharides** 6-12C **fatty acid ester** of high purity used in liquid crystals and rheological modification comprises combining a di or **trisaccharide** material, a 6-12C **fatty acid anhydride** material and a catalyst.
 DERWENT CLASS: E13

10/694242

INVENTOR(S): BUCHANAN, C M; DEBENHAM, J S; MALCOLM, M O; MOORE, M K;
WOOD, M D
PATENT ASSIGNEE(S): (BUCH-I) BUCHANAN C M; (DEBE-I) DEBENHAM J S; (MALC-I)
MALCOLM M O; (MOOR-I) MOORE M K; (WOOD-I) WOOD M D;
(EACH) EASTMAN CHEM CO
COUNTRY COUNT: 22
PATENT INFORMATION:

| PATENT NO | KIND | DATE | WEEK | LA | PG |
|--|------|----------|-----------|----|----|
| WO 2002018400 | A2 | 20020307 | (200235)* | EN | 39 |
| RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR | | | | | |
| W: JP | | | | | |
| US 2002103369 | A1 | 20020801 | (200253) | | |
| EP 1311521 | A2 | 20030521 | (200334) | EN | |
| R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR | | | | | |
| US 6667397 | B2 | 20031223 | (200408) | | |
| JP 2004507555 | W | 20040311 | (200419) | | 69 |
| US 2004087542 | A1 | 20040506 | (200430) | | |

APPLICATION DETAILS:

| PATENT NO | KIND | APPLICATION | DATE |
|---------------|----------------|-----------------|----------|
| WO 2002018400 | A2 | WO 2001-US26446 | 20010824 |
| US 2002103369 | A1 Provisional | US 2000-227990P | 20000825 |
| | | US 2001-933409 | 20010820 |
| EP 1311521 | A2 | EP 2001-966174 | 20010824 |
| | | WO 2001-US26446 | 20010824 |
| US 6667397 | B2 Provisional | US 2000-227990P | 20000825 |
| | | US 2001-933409 | 20010820 |
| JP 2004507555 | W | WO 2001-US26446 | 20010824 |
| | | JP 2002-523914 | 20010824 |
| US 2004087542 | A1 Provisional | US 2000-227990P | 20000825 |
| | Cont of | US 2001-933409 | 20010820 |
| | | US 2003-694242 | 20031027 |

FILING DETAILS:

| PATENT NO | KIND | PATENT NO |
|---------------|-------------|---------------|
| EP 1311521 | A2 Based on | WO 2002018400 |
| JP 2004507555 | W Based on | WO 2002018400 |
| US 2004087542 | A1 Cont of | US 6667397 |

PRIORITY APPLN. INFO: US 2001-933409 20010820; US
2000-227990P 20000825; US
2003-694242 20031027

AN 2002-315532 [35] WPIDS
AB WO 200218400 A UPAB: 20020603
NOVELTY - Method for preparing a di or **trisaccharide** 6-12C
fatty acid ester comprising combining a di or
trisaccharide material, a 6-12C **fatty acid**
anhydride material and a catalyst.
DETAILED DESCRIPTION - Method for preparing a di or
trisaccharide 6-12C **fatty acid ester**

Searcher : Shears 571-272-2528

comprising:

(a) combining a di or **trisaccharide** material, a 6-12C fatty acid anhydride material and a catalyst to provide a reaction mixture, where the reaction does not contain TFAA; and,

(b) contacting the mixture sufficiently to provide a high alpha-content di or **trisaccharide 6-12C fatty acid ester** having an alpha -content of between 50-100% directly from the reaction mixture.

An INDEPENDENT CLAIM is also included for a di or **trisaccharide 6-12C fatty acid esters** prepared above.

USE - The esters can form discotic columnar liquid crystals, be used as thickeners, plasticizers and rheology modifiers.

ADVANTAGE - The process prepares novel high purity mono or **disaccharide fatty acid esters**.

Dwg.0/6

L36 ANSWER 3 OF 9 MEDLINE on STN DUPLICATE 1
 ACCESSION NUMBER: 2002366219 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 12110192
 TITLE: Effect of fatty acid chain length on initial reaction rates and regioselectivity of lipase-catalysed esterification of **disaccharides**.
 AUTHOR: Pedersen Ninfa R; Wimmer Reinhard; Emmersen Jeppe; Degn Peter; Pedersen Lars H
 CORPORATE SOURCE: Institute of Life Sciences, Department of Biotechnology, Aalborg University, Sohngaardsholmsvej 49, DK-9000, Aalborg, Denmark.. lhp@bio.auc.dk
 SOURCE: Carbohydrate research, (2002 Jul 16) 337 (13) 1179-84. Journal code: 0043535. ISSN: 0008-6215.
 PUB. COUNTRY: Netherlands
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 200306
 ENTRY DATE: Entered STN: 20020712
 Last Updated on STN: 20030701
 Entered Medline: 20030630

AB In a reaction medium mixture of 9:11 t-BuOH and pyridine (v/v) the effect of **fatty acid** chain length (C-4-C-12) on C. antarctica lipase B (Novozym 435, EC 3.1.1.3) catalysed esterification was studied. alpha and beta maltose 6'-O-acyl **esters** in an anomeric molar ratio of 1.0:1.1 were synthesised independently of the chain length, but the initial specific reaction rate increased with decreasing chain length of the acyl donor. The product yield followed the same trend with a lauryl ester yield of 1.1% (mol/mol) and a butyl ester yield of 27.6% (mol/mol) after 24 h of reaction. With sucrose as the acyl acceptor the 6'-O-acyl and 6-O-acyl monoesters were formed with fatty acids of chain length C-4 and C-10 while the 6',6-O-acyl diester was formed only with butanoic acid (C-4:0) as acyl donor. The 6'-O-acyl and 6-O-acyl monoesters and the 6',6-O-acyl diester of butanoic acid were produced in a molar ratio of 1.0:0.5:0.2 and with decanoic acid (C-10:0) the 6'-O-acyl and 6-O-acyl monoesters were formed in the ratio of 1.0:0.3. The highest initial reaction rate and yield were obtained with the shortest chain length of the acyl donor. Initial reaction rates and ester yields were affected by the solubility of the **disaccharide**, with higher

reaction rates and yields with maltose than with sucrose, while no formation of esters were observed with either **cellobiose** or lactose as acyl acceptors.

L36 ANSWER 4 OF 9 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED.
on STN

ACCESSION NUMBER: 2002252067 EMBASE

TITLE: Effect of fatty acid chain length on initial reaction rates and regioselectivity of lipase-catalysed esterification of **disaccharides**.

AUTHOR: Pedersen N.R.; Wimmer R.; Emmersen J.; Degn P.; Pedersen L.H.

CORPORATE SOURCE: L.H. Pedersen, Institute of Life Sciences, Department of Biotechnology, Aalborg University, Sohngaardsholmsvej 49, DK-9000 Aalborg, Denmark. lhp@bio.auc.dk

SOURCE: Carbohydrate Research, (16 Jul 2002) 337/13 (1178-1183).
Refs: 16
ISSN: 0008-6215 CODEN: CRBRAT
S 0008-6215(02)00112-X

PUBLISHER IDENT.: S 0008-6215(02)00112-X

COUNTRY: United Kingdom

DOCUMENT TYPE: Journal; Article

FILE SEGMENT: 029 Clinical Biochemistry

LANGUAGE: English

SUMMARY LANGUAGE: English

AB In a reaction medium mixture of 9:11 t-BuOH and pyridine (v/v) the effect of **fatty acid** chain length (C-4-C-12) on C. antarctica lipase B (Novozym 435, EC 3.1.1.3) catalysed esterification was studied. α and β maltose 6'-O-acyl **esters** in an anomeric molar ratio of 1.0:1.1 were synthesised independently of the chain length, but the initial specific reaction rate increased with decreasing chain length of the acyl donor. The product yield followed the same trend with a lauryl **ester** yield of 1.1% (mol/mol) and a butyl **ester** yield of 27.6% (mol/mol) after 24 h of reaction. With sucrose as the acyl acceptor the 6'-O-acyl and 6-O-acyl monoesters were formed with **fatty acids** of chain length C-4 and C-10 while the 6',6-O-acyl diester was formed only with butanoic acid (C-4:0) as acyl donor. The 6'-O-acyl and 6-O-acyl monoesters and the 6',6-O-acyl diester of butanoic acid were produced in a molar ratio of 1.0:0.5:0.2 and with decanoic acid (C-10:0) the 6'-O-acyl and 6-O-acyl monoesters were formed in the ratio of 1.0:0.3. The highest initial reaction rate and yield were obtained with the shortest chain length of the acyl donor. Initial reaction rates and **ester** yields were affected by the solubility of the **disaccharide**, with higher reaction rates and yields with maltose than with sucrose, while no formation of **esters** were observed with either **cellobiose** or lactose as acyl acceptors. .COPYRGT. 2002 Elsevier Science Ltd. All rights reserved.

L36 ANSWER 5 OF 9 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN

ACCESSION NUMBER: 1995-213292 [28] WPIDS

DOC. NO. CPI: C1995-098711

TITLE: Detergents, having high foaming power and detergency - containing sugar ester surfactants and polyoxyethylene and/or amide type nonionic surfactants..

DERWENT CLASS: A96 A97 D21 D25 E13

PATENT ASSIGNEE(S): (LIOY) LION CORP

COUNTRY COUNT: 1
 PATENT INFORMATION:

| PATENT NO | KIND | DATE | WEEK | LA | PG |
|-------------|------|----------|-----------|----|----|
| JP 07126688 | A | 19950516 | (199528)* | | 7 |

APPLICATION DETAILS:

| PATENT NO | KIND | APPLICATION | DATE |
|-------------|------|----------------|----------|
| JP 07126688 | A | JP 1993-306965 | 19931102 |

PRIORITY APPLN. INFO: JP 1993-306965 19931102

AN 1995-213292 [28] WPIDS

AB JP 07126688 A UPAB: 19950721

New detergents contain: (A) one or a mixture of sugar **ester** type surfactants 6-22C **fatty acids** with dihexose type **disaccharides** and 4-6C sugar alcohols; and (B) one or a mixture of polyoxyethylene and amide type nonionic surfactants, with (A)/(B) w/w ratio of 1/5 to 5/1 and a combined concentration of (A) plus (B) of 5-50 weight%.

Fatty acids for (A) include caproic, caprylic, capric, lauric, myristic, palmitic, stearic, caproleic, lauroleic, myristoleic, palmitoleic, oleic and methyl undecanoic acids. Pref. **Fatty acid** residues are 8-12C for sugar alcohol **esters** and 10-14C for **disaccharide** type **esters**, **Disaccharides** include maltose, **cellobiose**, lactose, isomaltose, sucrose and trehalose. Sugar alcohols include erythritol, xylitol, sorbitol, mannitol and galactitol. Typical nonionic surfactants for (B) include polyoxyethylene alkyl (allyl) ethers.

USE/ADVANTAGE - The detergents are useful for cleaning laundry, kitchens, the hair and the body. The detergents have high foaming, emulsifying, dissolving and dispersing power and high detergency. Dwg.0/0

L36 ANSWER 6 OF 9 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN

ACCESSION NUMBER: 1993-196694 [24] WPIDS

DOC. NO. CPI: C1993-087112

TITLE: New sustained release compsn. - comprises carbohydrate glass matrix, therapeutic agent e.g. prolactin, somatotropin, growth hormone etc. and hydrophilic agent.

DERWENT CLASS: A96 B07

INVENTOR(S): CUNNINGHAM, J P; RAMAN, S N

PATENT ASSIGNEE(S): (PITM) PITMAN MOORE INC

COUNTRY COUNT: 41

PATENT INFORMATION:

| PATENT NO | KIND | DATE | WEEK | LA | PG |
|---|------|----------|-----------|----|----|
| WO 9310758 | A1 | 19930610 | (199324)* | EN | 22 |
| RW: AT BE CH DE DK ES FR GB GR IE IT LU MC NL OA SE | | | | | |
| W: AU BB BG BR CA CS FI HU JP KP KR LK MG MN MW NO PL RO RU SD UA | | | | | |
| AU 9331251 | A | 19930628 | (199342) | | |
| CN 1072861 | A | 19930609 | (199413) | | |

Searcher : Shears 571-272-2528

EP 615438 A1 19940921 (199436) EN
 R: AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL SE
 US 5356635 A 19941018 (199441) 5
 EP 615438 B1 19960724 (199634) EN 9
 R: AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL SE
 DE 69212497 E 19960829 (199640)
 ES 2090714 T3 19961016 (199647)
 TW 337488 A 19980801 (199849)
 CA 2125148 C 19990511 (199937) EN

APPLICATION DETAILS:

| PATENT NO | KIND | APPLICATION | DATE |
|-------------|-----------|-----------------|----------|
| WO 9310758 | A1 | WO 1992-US9392 | 19921102 |
| AU 9331251 | A | AU 1993-31251 | 19921102 |
| CN 1072861 | A | CN 1992-113798 | 19921204 |
| EP 615438 | A1 | EP 1992-925051 | 19921102 |
| | | WO 1992-US9392 | 19921102 |
| US 5356635 | A Cont of | US 1991-802581 | 19911205 |
| | | US 1993-91883 | 19930713 |
| EP 615438 | B1 | EP 1992-925051 | 19921102 |
| | | WO 1992-US9392 | 19921102 |
| DE 69212497 | E | DE 1992-612497 | 19921102 |
| | | EP 1992-925051 | 19921102 |
| | | WO 1992-US9392 | 19921102 |
| ES 2090714 | T3 | EP 1992-925051 | 19921102 |
| TW 337488 | A | TW 1992-108933 | 19921109 |
| CA 2125148 | C | CA 1992-2125148 | 19921102 |
| | | WO 1992-US9392 | 19921102 |

FILING DETAILS:

| PATENT NO | KIND | PATENT NO |
|-------------|-------------|------------|
| AU 9331251 | A Based on | WO 9310758 |
| EP 615438 | A1 Based on | WO 9310758 |
| EP 615438 | B1 Based on | WO 9310758 |
| DE 69212497 | E Based on | EP 615438 |
| | Based on | WO 9310758 |
| ES 2090714 | T3 Based on | EP 615438 |
| CA 2125148 | C Based on | WO 9310758 |

PRIORITY APPLN. INFO: US 1991-802581 19911205

AN 1993-196694 [24] WPIDS

AB WO 9310758 A UPAB: 19931116

New sustained release compsn. comprises amorphous carbohydrate glass matrix (I), a therapeutic agent (II), a hydrophobic substance (III) which modifies rate of release of (II) from (I) and opt. an agent (IV) which retards recrystallisation of (I).

(I) and opt. (IV) together comprise 60-90 weight% of compsn.; total carbohydrate content comprises 50-75 weight% (I) and 15-40 weight% (II), the remainder being water.

(I) = e.g. a **disaccharide** (e.g. sucrose (Ia), lactose, maltose or **cellobiose**). (IV) = e.g. polyvinylpyrrolidone (IVa), PVA, polyethylene glycols, maltodextrins, Na lauryl sulphate, oleyl

alcohol or stearyl alcohol.

(II) comprises 2-20 weight% of compsn. and = a polypeptide with mol.weight

1000-200,000 daltons (e.g. prolactin, serum albumins (bovine, ovine, porcine, avian or human), somatotropins (bovine, ovine, porcine, avian or human) or growth factors (epidermal growth factor, insulin-like growth factor I or II, fibroblast growth factor, transforming growth factor alpha or beta, platelet derived growth factor or nerve growth factor) or any biological fragment or recombinant form of these), vitamin or antibiotic.

(III) = 5-25 weight% of compsn. and = a wax (e.g. white or yellow beeswax, candelilla wax, carnauba wax, vegetable waxes, castor wax or cetyl esters wax), cholesterol, **fatty acid esters or fatty acids.**

Compsn. especially comprises recombinant porcine somatotropin (IIa), (IVa)

and beeswax (IIIa) dispersed in an amorphous sucrose glass matrix.

USE/ADVANTAGE - The compsn. provides sustained release of (II) and completely degrades in physiological fluids leaving little if any residue. Dissolution is relatively slow and occurs mainly at the surface of the matrix. The compsn. can be prepared by conventional methods (e.g. extrusion, tableting).

Dwg.0/0

ABEQ US 5356635 A UPAB: 19941206

A new sustained release compsn. for subcutaneous implantation comprises an amorphous carbohydrate glass matrix (50-75 % wt.) a biologically active therapeutic agent and a hydrophobic substance (wax) (15-40% wt.) to retard recrystallisation of the carbohydrate glass matrix. Carbohydrates include sucrose, lactose, maltose or cellulose. Therapeutics are polypeptides, vitamins or antibiotics, e.g. prolactin, growth hormones, serum albumins, growth factors, and their biologically active fragments and recombinants.

ADVANTAGE - After implantation or oral admin. the compsn. is degraded and absorbed releasing the therapeutic agent gradually over time.

Dwg.0/0

ABEQ EP 615438 B UPAB: 19960829

A sustained release composition comprising an amorphous carbohydrate glass matrix, a biologically active therapeutic agent, and a hydrophobic substance which modifies the rate of release of the therapeutic agent from the glass matrix.

Dwg.0/0

L36 ANSWER 7 OF 9 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN

ACCESSION NUMBER: 1990-275139 [36] WPIDS

DOC. NO. CPI: C1990-118947

TITLE: Preparation of glycoside **ester(s)** - by reacting methyl glycoside with **fatty acid** and enzyme catalyst.

DERWENT CLASS: D16 D21 D25 E13

INVENTOR(S): BJOERKLING, F; GODTFREDSEN, S E; KIRK, O; BJORKLING, F; GODTFREDSE, S E

PATENT ASSIGNEE(S): (NOVO) NOVO-NORDISK AS

COUNTRY COUNT: 20

PATENT INFORMATION:

| PATENT NO | KIND | DATE | WEEK | LA | PG |
|------------|------|----------|-----------|----|----|
| WO 9009451 | A | 19900823 | (199036)* | | 35 |

Searcher : Shears 571-272-2528

RW: AT BE CH DE DK ES FR GB IT LU NL SE
 W: AU CA FI JP KR NO US
 AU 9051597 A 19900905 (199048)
 FI 9103863 A 19910815 (199143)
 EP 458847 A 19911204 (199149)
 R: AT BE CH DE ES FR GB IT LI LU NL SE
 NO 9103214 A 19911014 (199204)
 JP 04503453 W 19920625 (199232) 11
 US 5200328 A 19930406 (199316) 8
 AU 638976 B 19930715 (199335)
 NO 300044 B1 19970324 (199719)
 EP 458847 B1 19971119 (199751) EN 14
 R: AT BE CH DE DK ES FR GB IT LI LU NL SE
 DE 69031732 E 19980102 (199806)
 ES 2111535 T3 19980316 (199817)
 JP 2915569 B2 19990705 (199932) 11
 FI 104265 B1 19991215 (200005)
 KR 163962 B1 19981116 (200030)

APPLICATION DETAILS:

| PATENT NO | KIND | APPLICATION | DATE |
|-------------|------|----------------|----------|
| EP 458847 | A | EP 1990-903327 | 19900215 |
| JP 04503453 | W | JP 1990-503803 | 19900215 |
| | | WO 1990-DK40 | 19900215 |
| US 5200328 | A | US 1990-494702 | 19900316 |
| AU 638976 | B | AU 1990-51597 | 19900215 |
| NO 300044 | B1 | WO 1990-DK40 | 19900215 |
| | | NO 1991-3214 | 19910816 |
| EP 458847 | B1 | EP 1990-903327 | 19900215 |
| | | WO 1990-DK40 | 19900215 |
| DE 69031732 | E | DE 1990-631732 | 19900215 |
| | | EP 1990-903327 | 19900215 |
| | | WO 1990-DK40 | 19900215 |
| ES 2111535 | T3 | EP 1990-903327 | 19900215 |
| JP 2915569 | B2 | JP 1990-503803 | 19900215 |
| | | WO 1990-DK40 | 19900215 |
| FI 104265 | B1 | WO 1990-DK40 | 19900215 |
| | | FI 1991-3863 | 19910815 |
| KR 163962 | B1 | KR 1991-700915 | 19910816 |

FILING DETAILS:

| PATENT NO | KIND | PATENT NO |
|-------------|-------------------|-------------|
| JP 04503453 | W Based on | WO 9009451 |
| AU 638976 | B Previous Publ. | AU 9051597 |
| | Based on | WO 9009451 |
| NO 300044 | B1 Previous Publ. | NO 9103214 |
| EP 458847 | B1 Based on | WO 9009451 |
| DE 69031732 | E Based on | EP 458847 |
| | Based on | WO 9009451 |
| ES 2111535 | T3 Based on | EP 458847 |
| JP 2915569 | B2 Previous Publ. | JP 04503453 |
| | Based on | WO 9009451 |

FI 104265

B1 Previous Publ.

FI 9103863

PRIORITY APPLN. INFO: DK 1989-768

19890217

AN 1990-275139 [36] WPIDS

AB WO 9009451 A UPAB: 19930928

Glycoside esters (RCO₂)-X-OMe (I) (R = 4-24C alkyl opt. substd. by OH or halogen; X = carbohydrate comprising 1-3 monosaccharide units; n = 1-3) are prepared by reaction of the acid (or ester) RCO₂R₁ (II) (R₁ = H or lower alkyl) with the glycoside X-OMe (III) in the presence of an enzyme catalyst.

In (I) and (II), each monosaccharide unit is pref. a hexose or pentose, especially in furanose or pyranose form. The moiety X-OMe may be present in alpha- and/or beta-anomeric form, especially a mixture containing at least

10% partic. at least 20% e.g. 20-99% by weight of the beta-anomer. Pref. cpds. have X = monosaccharide (pref. fructose, ribose, arabinose, xylose and mannose, especially glucose or galactose), or **disaccharide** (especially sucrose, lactose, maltose, **cellobiose**, and isomaltose); and R = 6-22C alkyl. Especially prefd. (I) have RCO are hexanoyl, heptanoyl, octanoyl, nonanoyl, decanoyl, dodecanoyl, tetradecanoyl, hexadecanoyl, octadecanoyl, eicosanoyl, docosanoyl, cis-9-octadecenoyl, cis, cis-9, 12-octadecadienoyl, or cis, cis, cis-9, 12, 15-octadecatrienoyl (the preparation of all these Me 6-O-(RCO)glucosides is specifically claimed) and arachinoyl, arachidonoyl, or behenoyl.

USE/ADVANTAGE - The process affords high yields of Me glycoside esters (I) from inexpensive materials, using enzymatic catalysts but no toxic solvents.

0/1

ABEQ US 5200328 A UPAB: 19930928

Methyl glycoside **fatty acid esters** of formula RCOO-X-OCH₃ (I) are prepd. by reacting acid or **ester** of formula RCOOR₁ (II) with glycoside of formula XOCH₃ (III) in a non-aq. medium or solvent other than acid or **ester** contg. an immobilised lipase. In formulae, R is 7-24C alkyl opt. substd. by OH or halogen, X is a monosaccharide contg. 1 hexose or pentose unit carrying OCH₃ at the anomeric-C and RCOO at the prim. OH, and R₁ is H or 1-6C alkyl.

Pref. X is glucose, fructose, ribose, galactose etc. Lipase is produced by e.g. *Candida antarctica*, *Pseudomonas cephalic* etc.

USE - Used as surfactants in cleaning compsns. or personal care prods.

0/0

ABEQ EP 458847 B UPAB: 19971222

A process for preparing a compound of the general formula (R-COO)_n-X-OCH₃ (I) wherein R is alkyl with 7-24 carbon atoms, X is a monosaccharide unit, and n is 1 or 2, the process comprising reacting an acid or ester of the general formula R-COOR₁ (II) wherein R is as defined above, and R₁ is hydrogen or lower alkyl, with a glycoside of the general formula X-OCH₃ (III) as defined above, in the presence of a lipase.

Dwg.0/1

L36 ANSWER 8 OF 9 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN

ACCESSION NUMBER: 1986-322322 [49] WPIDS

DOC. NO. CPI: C1986-139517

TITLE: Non-chapping detergent compsn. - containing anionic surfactant fatty acid alkanol-amide or alkylamine oxide

10/694242

and oligosaccharide.
DERWENT CLASS: D21 E19
PATENT ASSIGNEE(S): (SUNZ) SUNSTAR KK
COUNTRY COUNT: 1
PATENT INFORMATION:

| PATENT NO | KIND | DATE | WEEK | LA | PG |
|-------------|------|----------|-----------|----|----|
| JP 61238895 | A | 19861024 | (198649)* | | 4 |

APPLICATION DETAILS:

| PATENT NO | KIND | APPLICATION | DATE |
|-------------|------|---------------|----------|
| JP 61238895 | A | JP 1985-82988 | 19850417 |

PRIORITY APPLN. INFO: JP 1985-82988 19850417

AN 1986-322322 [49] WPIDS

AB JP 61238895 A UPAB: 19930922

Compsn. contains 5-40 weight% anionic surfactant, 1-40 weight% fatty acid alkanolamide or alkylamine oxide, and 0.1-10 weight% oligosaccharide. The weight

ratio of anionic surfactant to fatty acid alkanolamide or alkylamine oxide is 1/5-5/1.

Suitable oligosaccharide is **disaccharide**, **trisaccharide**, tetrasaccharide, and pentasaccharide, such as aldose, **cellobiose**, lactose, sucrose, etc.. Suitable amount of oligosaccharide in the compsn. is 0.1-10 weight%. Suitable **fatty acid** alkanolamide is lauric acid diethanolamide, coconut oil **fatty acid** diethanolamide, etc. and suitable alkylamine oxide is lauryl dimethylamine oxide, bis-(2-hydroxyethyl) laurylamine oxide. Suitable amts. of both are 1-40 weight%. Anionic surfactant is alkali metal salt, alkaline earth metal salt, NH₄ salt, or 1-3C alkanolamide, etc. of alkylbenzene sulphonic acid, alkyl sulphuric **ester**, alkylether sulphuric **ester**, alpha-olefin sulphonic acid, etc.. Amount is 5-40 weight%.
0/0

L36 ANSWER 9 OF 9 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN

ACCESSION NUMBER: 1982-31110E [16] WPIDS

TITLE: Antitumour compsns. especially effective against solid tumours

- containing mono- or **di-saccharide fatty acid ester**.

DERWENT CLASS: B05

INVENTOR(S): BRAILOS VSK, C A; NIGAM, V N

PATENT ASSIGNEE(S): (UYSH) UNIV SHERBROOKE

COUNTRY COUNT: 1

PATENT INFORMATION:

| PATENT NO | KIND | DATE | WEEK | LA | PG |
|------------|------|----------|-----------|----|----|
| CA 1120399 | A | 19820323 | (198216)* | | 10 |

Searcher : Shears 571-272-2528

PRIORITY APPLN. INFO: CA 1979-336631 19790928

AN 1982-31110E [16] WPIDS

AB CA 1120399 A UPAB: 19930915

Pharmaceutical compsns. for enhancing the capacity of a host to reject tumour cells, retarding tumour growth or inducing hemorrhagic necrosis comprises a mono- or **disaccharide fatty acid ester** (I) in admixture with a carrier, where (I) is an **ester** of maltose, galactose, glucose, mannose, arabinose or **cellobiose** with a 12-18C **fatty acid**.

Specifically claimed compsns. contain maltose tetrapalmitate (MTP); other exemplified cpds. (I) are arabinose monopalmitate, galactose monopalmitate and maltose hexapalmitate. The compsns. can be administered orally or subcutaneously at doses of 0.05-0.5 mg/kg, given 3-4 times a week.

The compsns. can be used to arrest growth during early development stages or to inhibit tumour regrowth after surgery, chemotherapy or radiotherapy. They are especially effective against solid tumours.

FILE 'CAPLUS' ENTERED AT 15:52:52 ON 01 SEP 2004

L29 1 SEA FILE=REGISTRY ABB=ON PLU=ON CELLOBIOSE/CN
 L31 7825 SEA FILE=CAPLUS ABB=ON PLU=ON L29 OR CELLOBIOSE
 L32 1136 SEA FILE=CAPLUS ABB=ON PLU=ON L31 AND (TRISACCHARIDE OR DISACCHARIDE OR (TRI OR DI) (W) SACCHARIDE)
 L37 10 SEA FILE=CAPLUS ABB=ON PLU=ON L32 AND FATTY ACID(S) ESTER?
 L38 1 L37 NOT (L22 OR L34)

L38 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 09 Jul 2002

ACCESSION NUMBER: 2002:509875 CAPLUS

DOCUMENT NUMBER: 137:385022

TITLE: Effect of **fatty acid** chain length on initial reaction rates and regioselectivity of lipase-catalyzed **esterification** of **disaccharides**

AUTHOR(S): Pedersen, Ninfa R.; Wimmer, Reinhard; Emmersen, Jeppe; Degn, Peter; Pedersen, Lars H.

CORPORATE SOURCE: Institute of Life Sciences, Department of Biotechnology, Aalborg University, Aalborg, DK-9000, Den.

SOURCE: Carbohydrate Research (2002), 337(13), 1179-1184
 CODEN: CRBRAT; ISSN: 0008-6215

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB In a reaction medium mixture of 9:11 t-BuOH and pyridine (volume/volume) the effect of **fatty acid** chain length (C-4-C-12) on C. antarctica lipase B (Novozym 435, EC 3.1.1.3) catalyzed **esterification** was studied. α And β maltose 6'-O-acyl esters in an anomeric molar ratio of 1.0:1.1 were synthesized independently of the chain length, but the initial specific reaction rate increased with decreasing chain length of the acyl donor. The product yield followed the same trend with a lauryl ester yield of 1.1% (mol/mol) and a Bu ester yield of 27.6% (mol/mol) after 24 h of reaction. With sucrose as the acyl acceptor the 6'-O-acyl and 6-O-acyl monoesters were

formed with fatty acids of chain length C-4 and C-10 while the 6',6-O-acyl diester was formed only with butanoic acid (C-4:0) as acyl donor. The 6'-O-acyl and 6-O-acyl monoesters and the 6',6-O-acyl diester of butanoic acid were produced in a molar ratio of 1.0:0.5:0.2 and with decanoic acid (C-10:0) the 6'-O-acyl and 6-O-acyl monoesters were formed in the ratio of 1.0:0.3. The highest initial reaction rate and yield were obtained with the shortest chain length of the acyl donor. Initial reaction rates and ester yields were affected by the solubility of the **disaccharide**, with higher reaction rates and yields with maltose than with sucrose, while no formation of esters were observed with either **cellobiose** or lactose as acyl acceptors.

IT 528-50-7, **Cellobiose**

RL: RCT (Reactant); RACT (Reactant or reagent)
(effect of **fatty acid** chain length on initial
reaction rates and regioselectivity of lipase-catalyzed
esterification of disaccharides)

REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

(FILE 'MEDLINE, BIOSIS, EMBASE, WPIDS, CONFSCI, SCISEARCH, JICST-EPLUS,
JAPIO' ENTERED AT 15:53:34 ON 01 SEP 2004)

L39 11 S L37
L40 0 S L39 NOT L35

(FILE 'MEDLINE' ENTERED AT 15:54:19 ON 01 SEP 2004)

L41 495 SEA FILE=MEDLINE ABB=ON PLU=ON CELLOBIOSE/CT
L42 1743 SEA FILE=MEDLINE ABB=ON PLU=ON TRISACCHARIDES/CT
L43 5173 SEA FILE=MEDLINE ABB=ON PLU=ON DISACCHARIDES/CT
L44 98 SEA FILE=MEDLINE ABB=ON PLU=ON L41 AND (L42 OR L43)
L45 9240 SEA FILE=MEDLINE ABB=ON PLU=ON ESTERS/CT
L46 0 SEA FILE=MEDLINE ABB=ON PLU=ON L44 AND L45

L41 495 SEA FILE=MEDLINE ABB=ON PLU=ON CELLOBIOSE/CT
L45 9240 SEA FILE=MEDLINE ABB=ON PLU=ON ESTERS/CT
L47 1 SEA FILE=MEDLINE ABB=ON PLU=ON L41 AND L45

L47 ANSWER 1 OF 1 MEDLINE on STN

ACCESSION NUMBER: 2002443746 MEDLINE

DOCUMENT NUMBER: PubMed ID: 12203972

TITLE: Multifunctional folded polypeptides from peptide synthesis
and site-selective self-functionalization--practical
scaffolds in aqueous solution.

AUTHOR: Andersson Linda K; Dolphin Gunnar T; Baltzer Lars
CORPORATE SOURCE: Department of Chemistry, Goteborg University, 41296
Goteborg (Sweden).

SOURCE: Chembiochem : a European journal of chemical biology, (2002
Aug 2) 3 (8) 741-51.

Journal code: 100937360. ISSN: 1439-4227.

PUB. COUNTRY: Germany: Germany, Federal Republic of

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200301

ENTRY DATE: Entered STN: 20020831

Last Updated on STN: 20030131

Entered Medline: 20030130

ED Entered STN: 20020831

Last Updated on STN: 20030131

Entered Medline: 20030130

AB The site selectivity of His-mediated lysine and ornithine side-chain acylation in a designed four-helix bundle protein scaffold was mapped by reaction of several polypeptides with one equivalent of mono-p-nitrophenyl fumarate in aqueous solution at pH 5.9 and room temperature followed by an analysis of the degrees and sites of acylation. Integration of the HPLC chromatograms of the acylated polypeptides and trypsin cleavage followed by mass spectrometry analysis of the tryptic fragments provided the experimental evidence. Based on these and previously published results a strategy was developed for the site-selective and stepwise incorporation of three residues into a folded polypeptide in aqueous solution at room temperature. The first substituent was incorporated by reaction of a 1.7-fold excess of the corresponding active ester with the polypeptide at pH 5.9, the second substituent was introduced in a 3-fold excess after the pH value was raised to 8, and the third substituent was incorporated by reaction of a 10-fold excess with the polypeptide at pH 5.9. No intermediate steps of purification were taken and the overall yield was 30 % or more. Examples of the substituents included are carbohydrates, an enzyme inhibitor, a fumarate, and an acetate group. The introduction of different substituents into three individually addressable positions in a stepwise, efficient, and controllable reaction demonstrates that designed folded polypeptides are practically useful scaffolds that can be functionalized by using very simple chemistry in aqueous solution. Predicted applications include designed receptors, biosensors, and molecular devices.

FILE 'HOME' ENTERED AT 15:56:31 ON 01 SEP 2004